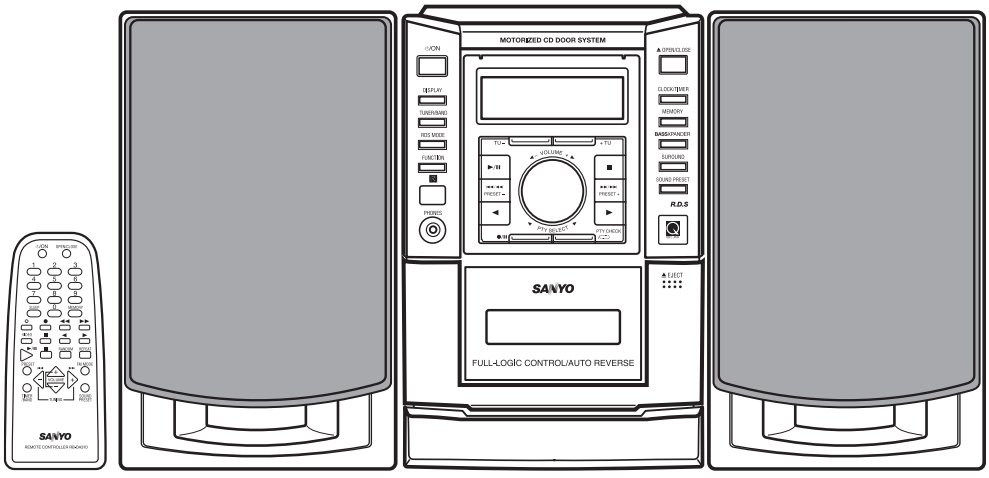
SANYO

FILE NO.

Service Manual

Micro Component System

DC-DA370 (XE)



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PRODUCT CODE No.
129 599 01 (XE)

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This service manual consists of "DC-DA370U" (Main unit : 129 598 01) and "SX-DA370" (Speaker system : 165 027 01).

REFERENCE No. SM5810189

SPECIFICATIONS

Tuner

Reception frequency ..... FM : 87.5 - 108.0 MHz
MW: 522 - 1611kHz
LW : 144 - 288kHz

CD player

Channels ..... 2-channel stereo
Sampling frequency ..... 44.1 kHz
Pick-up ..... Optical 3-beam semiconductor laser
Wow and Flutter ..... Below measurable limits
Wave length ..... 790 nm
Laser output ..... 0.6mW(Continuous wave max.)

Cassette deck section

Track system ..... 4-track, 2-channel stereo
Frequency response ..... 60 Hz - 13.5 kHz
Signal to noise ratio ..... 50 dB
Wow and Flutter ..... 0.12% (WRMS)
Fast forward / Rewind time .... Approx. 110 sec. (C-60)

General

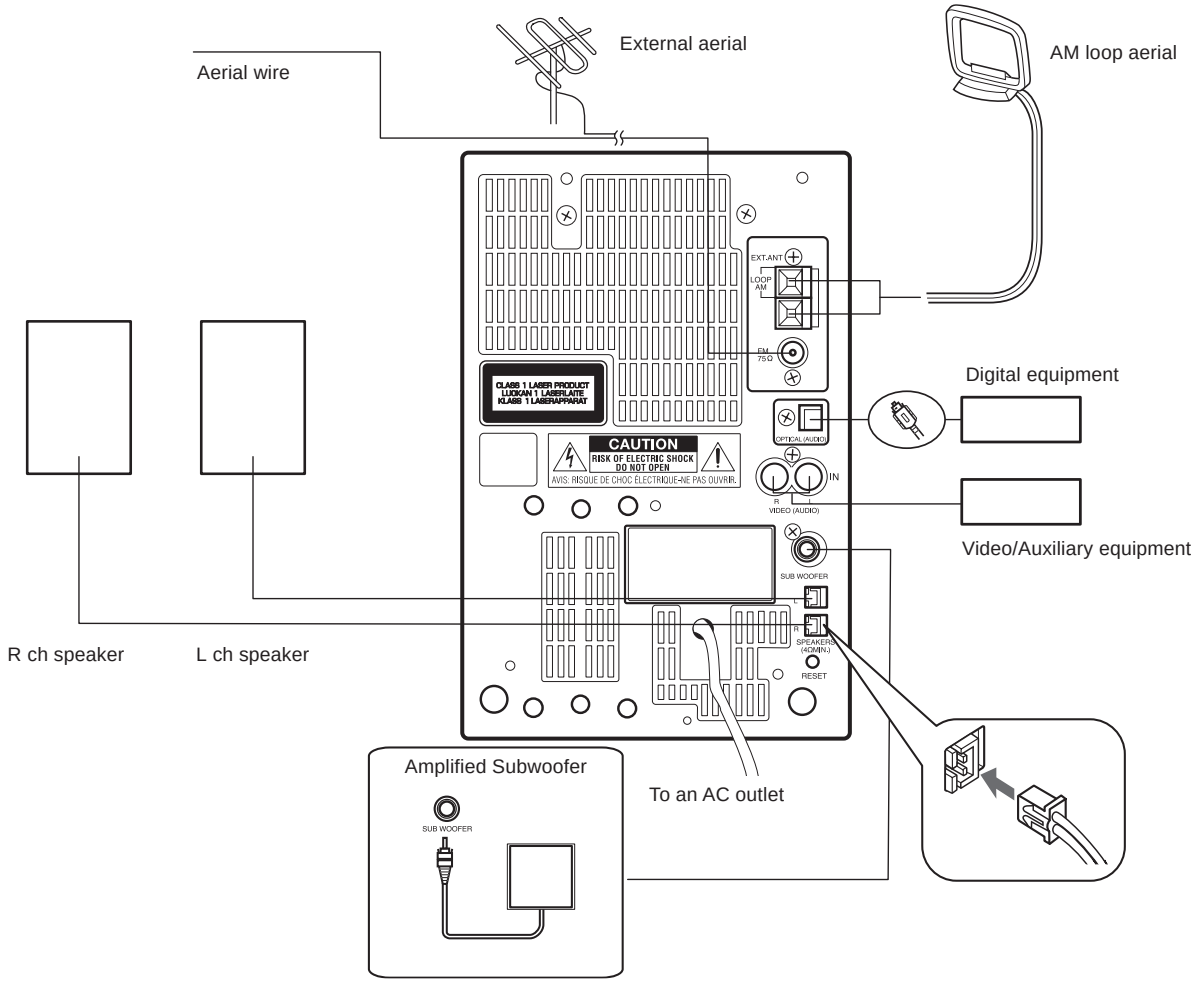
Output power ..... 12.5 W x 2 (at 4 ohms, 10% distortion)
Inputs ..... VIDEO IN : 400 mV / 50k ohms
Outputs ..... SPEAKERS : 4 ohms
PHONES : 8 - 32 ohms
OPTICAL OUT:Optical
Power requirements ..... AC 230V, 50Hz
Power consumption ..... 40 W
Dimensions (W x H x D) ..... Approx. 160 x 251 x 207 mm
Weight ..... Approx. 3.2 kg

Speaker system

Type ..... 3 way bass reflex
Unit used : Woofer ..... 10 cm cone type
: Mid range ..... 5 cm cone type
: Tweeter ..... 2 cm piezoelectric
Maximum power-handling capacity ..... 25 Watts (peak)
Nominal impedance ..... 4 ohms
Dimensions (W x H x D) ..... Approx. 150 x 245 x 224 mm
Weight ..... Approx. 1.9 kg (per speaker)

Specifications subject to change without notice.

SYSTEM CONNECTIONS



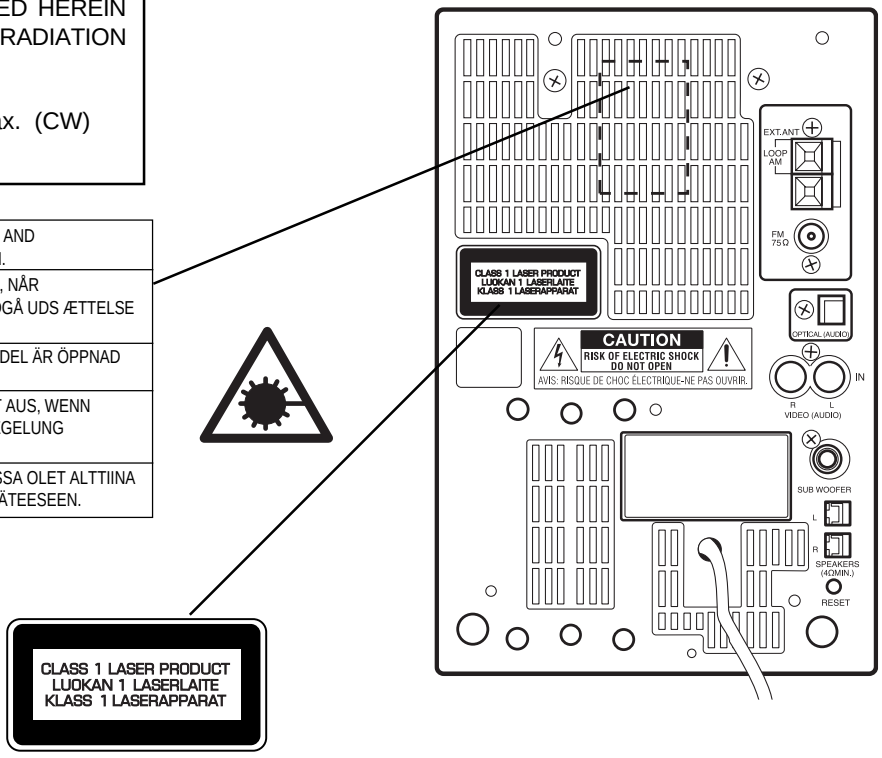
LASER BEAM SAFETY PRECAUTION

- Pick-up that emits a laser beam is used in this CD player section.

CAUTION :
USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE

LASER OUTPUT ..... 0.6 mW Max. (CW)
WAVELENGTH ..... 790 nm

CAUTION – INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED. AVOID EXPOSURE TO BEAM.
ADVARSEL – USYNLIG LASER STRÅLING VED ÅBNING, NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION, UNDGÅ UDS ÆTTELSE FOR STRÅLING.
VARNING – OSYNLIG LASER STRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRR ÄR URKOPPLAD. STRÅLEN ÄR FARLIG.
VORSICHT – UNSICHTBARE LASERSTRAHLUNG TRITT AUS, WENN DECKEL GEÖFFNET UND WENN SICHERHEITSVERRIEGELUNG ÜBERBRÜCKT IST. NICHT, DEM STRAHL AUSSETZEN.
VARO – AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.



CD PICK-UP MAINTENANCE

About pick-up (Optical lens) Cleaning

Clean a lens with swab of the cotton which moistened it with alcohol, cleaning paper or cleaning disc appointed.
Specified cleaning disc : LC-1 (Part code : 645 026 1961 ..... manufactured by SANYO.)

Show a clean procedure in the following in reference by swab of cotton.

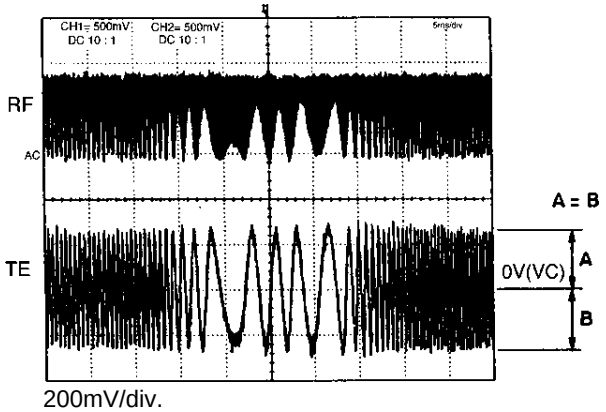
1. Cotton swab is wrapped with Cleaning paper.
2. Add the isopropyl alcohol.
3. Gently move the tip of cotton swab just like a draw a whirlpool from inside to outside on the surface of lens.

CD PLAYER ADJUSTMENTS

1. ADJUSTMENTS

(1) Confirm the tracking balance

1. Turn on the POWER switch.
2. Connect an Oscilloscope to TP2 (TE) and TP4 (VC).
3. Set the test disc.
4. Press "PLAY" button to turn into the "PLAY" mode.
5. Keep holding "SKIP" button down so as to be "SERCH" mode, then confirm that the oscilloscope waveform is symmetrical on the top and bottom in relation to 0V (VC).

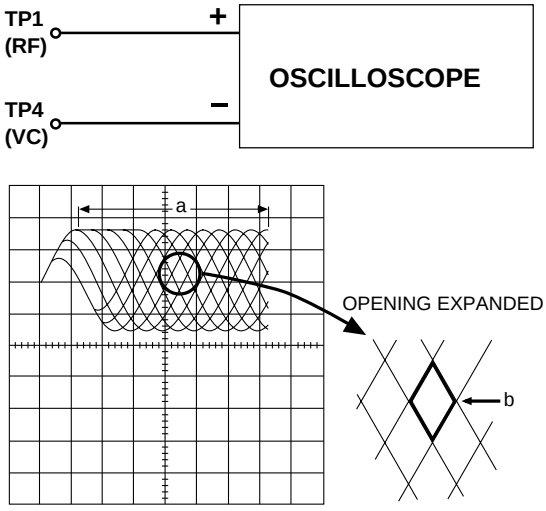


200mV/div.
5ms/div.

CD PLAYER ADJUSTMENTS

(2) Checking the "eye" pattern

1. Switch "ON" the POWER.
2. Connect an oscilloscope to TP1 (RF) and TP4 (VC).
3. Load the test disc.
4. Press the PLAY button.
5. Check to be sure that the "eye" pattern is at the center of waveform and that the diamond shape is clearly defined.
6. Press the STOP button.
7. Turn off the POWER switch.



TAPE ADJUSTMENTS

1. Azimuth Adjustment

- Be sure to clean the heads before attempting to make any adjustment.
- Be sure both channels (1 and 2) are the same level.
  (Using a dual-channel oscilloscope)
- Be sure both channel's waveform are same for the phase matching.
- After completion of the adjustment, use the threadlock (TB-1401B) to secure the azimuth adjustment screws.

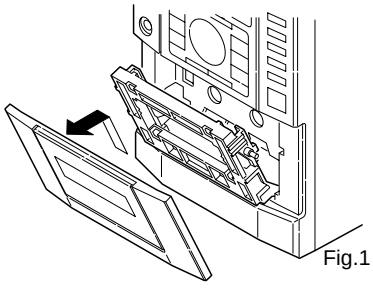


Fig.1

1. Remove the cover deck as Fig.1.
2. Load a test tape (VTT-738 etc. : 10kHz) in the Deck.
3. Press the PLAY button. (Normal playback)
4. Use a + tip screwdriver to turn the screw for normal azimuth adjustment so that the left and right outputs are maximized at the same phase during normal playback. See Fig.2.
5. Press the PLAY button. (Reverse playback)
6. Use a + tip screwdriver to turn the screw for reverse azimuth adjustment so that the left and right outputs are maximized at the same phase during reverse playback.
7. Adjust so that the waveforms for the left and right channels are in alignment.

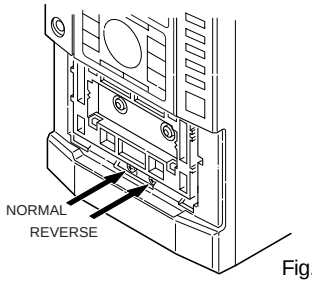


Fig.2

2. Tape Speed Adjustment

- Connect the Frequency Counter to TAPE OUT.

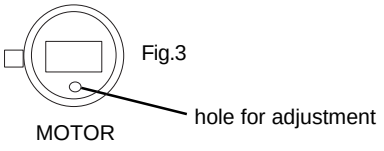


Fig.3

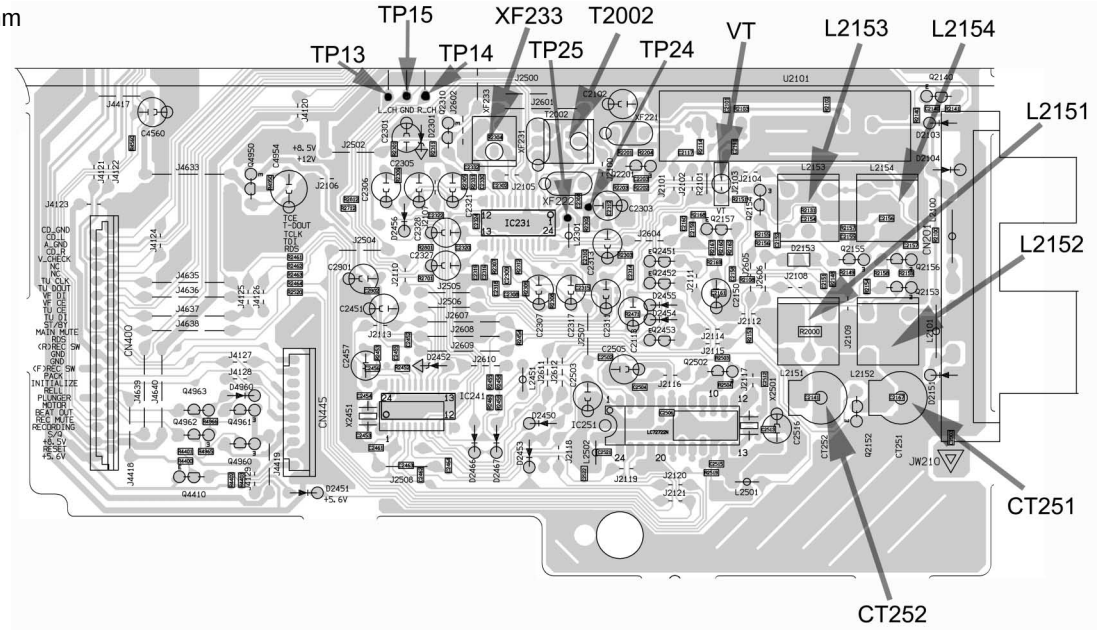
1. Insert the test tape (MTT-111N, etc.; 3,000Hz) into the DECK.
2. Press the PLAY button. .
3. Adjust a hole on the motor bottom so that a frequency counter reading of 3,000 ±5Hz is obtained.See Fig.3.
4. Press the STOP button, and eject the test tape.

3. Torque Measurement

Item	Take-up Torque	Back tention	Pulley tention
Test Cassette	PLAY : TW2111A (FWD) PLAY : TW2121A (REV) F.FWD / REW : TW2231	PLAY : TW2111A (FWD) PLAY : TW2121A (REV)	Driving power cassette : TW-2412 (PLAY) TW-2422(REV. PLAY)
PLAY/REV.	30 ~ 65 grcm	2 ~ 6 grcm	>50grcm
F.FWD	30 ~ 65 grcm	-	70 ~140 grcm
REW	70 ~ 140 grcm	-	

TUNER ADJUSTMENTS

- Use a plastic screw driver for adjustments.
- MODE : ST (Stereo)
- Speaker impedance : 4 ohm
- TUNING
  FM : 87.5 - 108MHz
  MW: 522 - 1611kHz
  LW : 144 - 288kHz



Standatd Input: 60dB
Antenna : 75 unbalanced , Modulation : 1 kHz
Dev. : ±22.5kHz(MONO) 22.5kHz(STEREO) ±6.75kHz(PILOT)

1. FM

Step	Adjusting Circuit	Connection Input	Connection Output	SG Frequency	Set Position	Adjustment	Remark
1	IF(0V) Adjustment	98.0MHz.Input Level FM Antenna SG=66dBμV	Alignment voltage IC231 3-22pin(TP24,25) is 0.0±0.05V	98MHz	Low	XF233	Alignment voltage IC231 3-22pin is 0.0±0.5V
2	Cover Voltage	---	Connect Digital DC voltmeter to TP11(H), TP12(E).	87.5MHZ	Low	---	1.4±0.05V
		---		108.0MHZ	High	---	6.8±0.5V

SG Modulation : 1kHz, 30%
Antenna, IRE Loop, Distance : 60 cm

2. MW

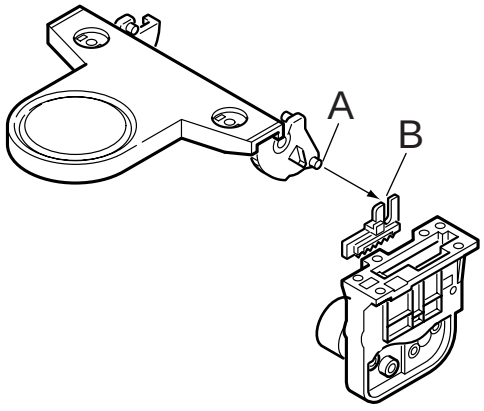
Step	Adjusting Circuit	Connection Input	Connection Output	SG Frequency	Set Position	Adjustment	Remark
1	IF	---	Connect Sweep generator to test point TP13(L)or TP14(R) and TP15(E).	450kHz (at 999kHz)	Low	T2002	AF Maximum
2	Cover Voltage	---	Connect Digital DC voltmeter to TP11(H)and TP12(E).	522kHZ	Low	L2153	1.00±0.05V
		---		1611kHZ	High		6.70±0.10V
3	Tracking	Connect AM SG to Test loop Ant.	Connect to VTVM point TP13(L)or TP14(R) and TP15(E).	603KHZ	Low	L2151	AF Maximum
				1404kHZ	High	CT252	

3. LW

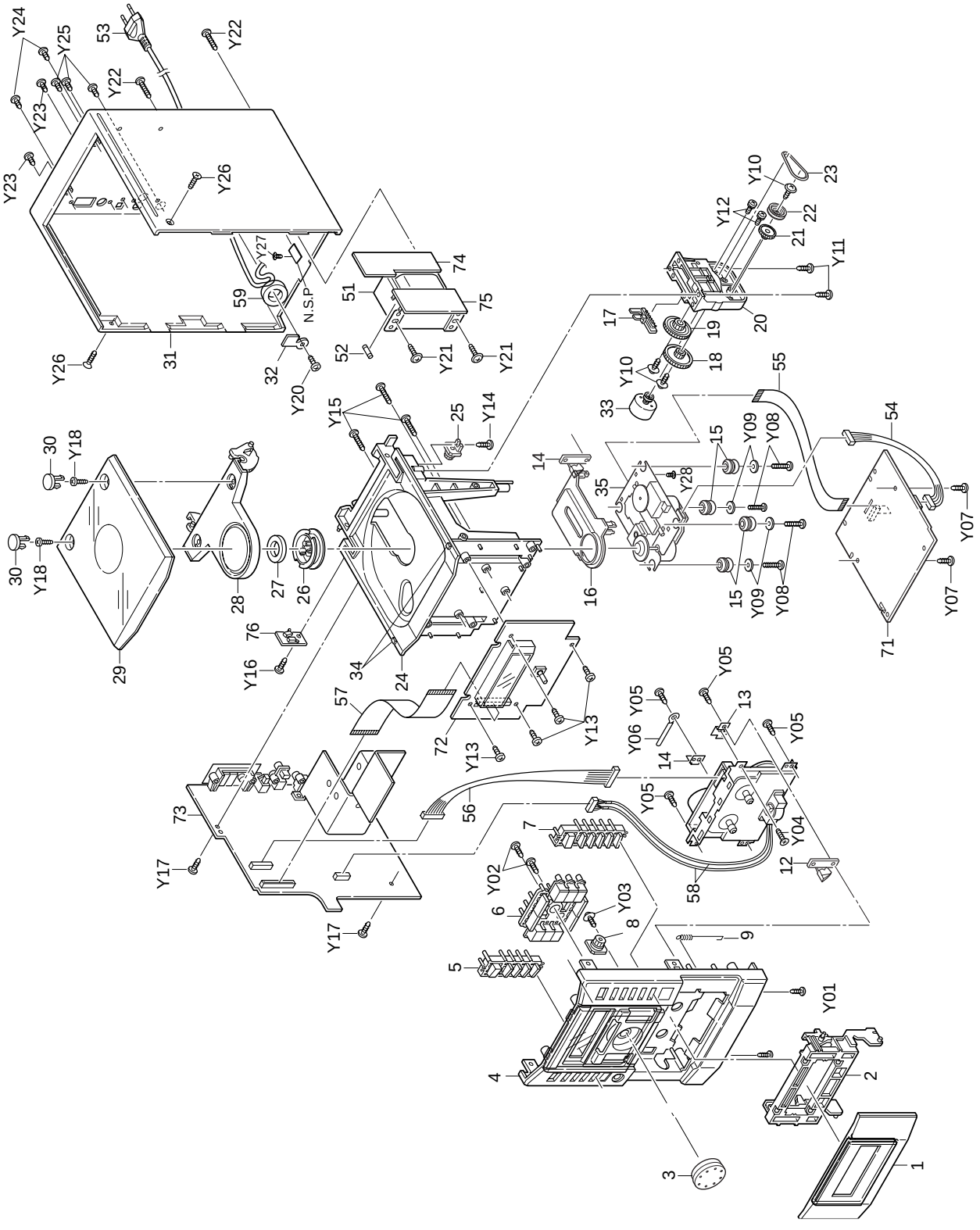
Step	Adjusting Circuit	Connection Input	Connection Output	SG Frequency	Set Position	Adjustment	Remark
1	Cover Voltage	---	Connect Digital DC voltmeter to TP11(H) and TP12(E).	144kHZ	Low	L2154	1.00±0.05V
		---		288kHZ	High	---	5.42±0.10V
2	Tracking	Connect AM SG to Test loop Ant.	Connect to VTVM point TP13(L)or TP14(R) and TP15(E).	162kHZ	Low	L2152	AF Maximum
				279kHZ	High	CT251	

When assembling the Rack Gear and CD Lid

When assembling the rack gear and CD lid, "A"part should be inserted into the "B" part.



EXPLODED VIEW (CABINET & CHASSIS)



N.S.P : Not supplied as service parts.

PARTS LIST

PRODUCT SAFETY NOTICE

EACH PRECAUTION IN THIS MANUAL SHOULD BE FOLLOWED DURING SERVICING. COMPONENTS IDENTIFIED WITH THE IEC SYMBOL ⚠ IN THE PARTS LIST AND THE SCHEMATIC DIAGRAM DESIGNATED COMPONENTS IN WHICH SAFETY CAN BE OF SPECIAL SIGNIFICANCE. WHEN REPLACING A COMPONENT IDENTIFIED BY ⚠, USE ONLY THE REPLACEMENT PARTS DESIGNATED, OR PARTS WITH THE SAME RATINGS OF RESISTANCE, WATTAGE OR VOLTAGE THAT ARE DESIGNATED IN THE PARTS LIST IN THIS MANUAL. LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS MUST BE MADE TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE PRODUCT TO THE CUSTOMER.

CAUTION : Regular type resistors and capacitors are not listed. To know those values, refer to the schematic diagram.
Regular type resistors are less than 1/4 W carbon type and 0 ohm chip resistors.
Regular type capacitors are less than 50 V and less than 1000 µF type of Ceramic type and Electrical type.

PACKING & ACCESSORIES

REF.NO.	PART NO.	DESCRIPTION
	614 314 9798	CARTON CASE
	614 314 2850	CUSHION,REAR
	614 314 2867	CUSHION,FRONT
	614 314 9811	INSTRUCTION MANUAL
	614 314 9828	INSTRUCTION MANUAL,GREECE
	645 041 9034	POLY SHEET-0430X0290*NC,SET
	645 044 1110	REMOCON
	645 005 0701	ANTENNA,LOOP
	614 229 4635	ANT
or	614 308 5515	ANT
	614 314 9576	ASSY,BOX,SPEAKER
	614 314 2317	ASSY,GRILLE

CABINET & CHASSIS

REF.NO.	PART NO.	DESCRIPTION
1	614 314 2409	ASSY,DOOR,DECK
2	614 314 2645	LID,CASSETTE
3	614 303 5718	KNOB,VR
4	614 314 9651	ASSY,PANEL,FRONT
5	614 314 2454	BUTTON,POWER,5KEYS
6	614 314 2478	BUTTON,PLAY,10KEYS
7	614 314 2515	BUTTON,MEMORY,6KEYS
8	614 309 7969	ASSY GEAR, LID CASSETTE
9	614 303 5794	SPRING,DOOR DECK
12	614 303 1277	LATCH,CAM,DECK,DOOR,LOCKING
13	614 316 0359	MOUNTING,HOOK,ASSY,MECHA
14	614 304 5700	HOLDER,MAIN PCB,MAIN PCB
15	614 310 3899	SPACER,MECHA,MTG CD+DA11
16	614 307 2072	COVER,PICK-UP
17	614 314 8067	RACK,GEAR-1
18	614 318 5079	ASSY,CLUTCH
19	614 314 8043	GEAR
20	614 314 8050	MOUNTING,MOTOR
21	614 314 8036	GEAR
22	614 237 7161	PULLEY
23	614 300 8293	BELT,SQUARE
24	614 314 2669	MOUNTING,CD
25	614 309 8270	ASSY,GEAR,LID,CD
26	614 307 8821	PULLEY
27	614 303 0256	LATCH,MAGNET
28	614 314 2652	LID,CD
29	614 314 2614	DEC,WINDOW,CD
30	614 315 9254	DEC,CAP
31	614 314 9644	ASSY,CABINET,REAR
32	614 316 1172	STOPPER
33	614 318 5086	ASSY,MOTOR
34	614 269 9621	SPACER,WINDOW,CD+WINDOW
35	614 307 9804	ASSY,CD MECHA,CDDA11-SASH

FIXING PARTS

REF.NO.	PART NO.	DESCRIPTION
Y01	411 165 3803	SCR S-TPG BIN 2.3X10, FRONT BOTTOM
Y02	411 021 3503	SCR S-TPG BIN 3X10,F PANEL+BUTTON,PLAY
Y03	412 003 1708	SPECIAL SCREW,FRONT+ASSY,GEAR
Y04	411 022 4608	SCR S-TPG FLT 3X8, MECHA+MOUNTING HOOK
Y05	411 021 3503	SCR S-TPG BIN 3X10, F-PANEL+MECHAL+LATCH,CAM
Y06	614 129 9136	LUG,LEAD FIX
Y07	411 021 3503	SCR S-TPG BIN 3X10, MTG CD+CD PCB
Y08	411 021 1806	SCR S-TPG BIN 2.6X10,MTG CD+DA11
Y09	411 092 0906	WASHER Z 2.6X10X0.5,MTG CD+DA11
Y10	412 061 7803	SPECIAL SCREW,GEAR
Y11	411 021 3503	SCR S-TPG BIN 3X10,ASSY, MOTOR+MOUNT CD
Y12	411 044 7502	SCR PAN+SW 2X5,MOTOR
Y13	411 021 3503	SCR S-TPG BIN 3X10,MTG CD+F-PCB
Y14	411 021 3503	SCR S-TPG BIN 3X10,MOUNTING, CD+ASSY,GEAR
Y15	411 021 4906	SCR S-TPG BIN 3X20, P-PANEL+MTG CD
Y16	411 021 3503	SCR S-TPG BIN 3X10,SWITCH, PWB+MOUNTING CD
Y17	411 021 3503	SCR S-TPG BIN 3X10,MAIN PCB
Y18	411 165 3803	SCR S-TPG BIN 2.3X10, LID CD+DEC WINDOW CD
Y20	411 021 3503	SCR S-TPG BIN 3X10,REAR+STOPPER
Y21	412 032 6408	SPECIAL SCREW,REAR+P-TRANS
Y22	411 021 4906	SCR S-TPG BIN 3X20,C-REAR
Y23	411 021 3404	SCR S-TPG BIN 3X10, C-REAR(ANT TERMINAL)
Y24	411 021 3404	SCR S-TPG BIN 3X10,MTG CD+REAR
Y25	411 021 3404	SCR S-TPG BIN 3X10,C-REAR+OPT
Y26	411 098 7800	SCR S-TPG FLT 3X12, C-REAR+MTG(L/R)
Y27	411 021 3503	SCR S-TPG BIN 3X10, REAR+AC CORD PCB
Y28	411 156 2105	SCR S-TPG BIN 2.3X6,LUG45

ELECTRICAL PARTS

REF.NO.	PART NO.	DESCRIPTION
51	⚠ 645 044 6078	POWER TRANSFORMER
52	⚠ 423 016 8103	FUSE 250V 4A
53	⚠ 645 016 9939	CORD,POWER-1.74MK
54	614 316 8041	ASSY,WIRE,CD-CD MECHA
55	614 316 8072	FLEXIBLE FLAT CABLE, CD-CD MECHA
56	614 316 8027	ASSY,WIRE, AMP-TAPE MECHA
57	614 316 8065	FLEXIBLE FLAT CABLE, AMP-FR
58	614 316 8010	ASSY,WIRE,R/P HEAD-AMP
59	645 031 7637	CORE,FERRITE
	614 316 8034	ASSY,WIRE,CD-LID

PARTS LIST

CD P.W.BOARD ASSY

REF.NO.		PART NO.	DESCRIPTION
71		614 314 9606	ASSY,PWB CD (Only Initial)
C1317		404 085 3909	ELECT 0.22U M 50V
C1330		404 079 6206	ELECT 10U M 25V
C1335		404 079 6206	ELECT 10U M 25V
C1338		404 079 6206	ELECT 10U M 25V
C1339		404 079 6206	ELECT 10U M 25V
C1773		404 079 6206	ELECT 10U M 25V
C1783		404 079 6206	ELECT 10U M 25V
CN111		645 026 2463	SOCKET,FFC 15P
or		645 040 0513	SOCKET,FPC 15P
CN113		645 005 8127	PLUG,6P,BASEMECHA
or		614 310 2472	PLUG,6P,BASEMECHA
CN114		645 005 9292	PLUG,5P
or		614 310 2465	PLUG,5P
CN115		614 316 7990	ASSY,WIRE,WIRE
D1211		407 099 4603	ZENER DIODE MTZJ3.9B
D1402		407 099 5204	ZENER DIODE MTZJ5.1B
D1404		407 012 4406	DIODE 1SS133
IC101		409 396 8100	IC LA9241ML
IC102		409 435 2106	IC LC78622NE
IC103	⚠	409 372 9602	IC LA6541
IC104	⚠	409 441 4507	IC TA7291S(M)
L1451		645 031 7835	INDUCTOR,10U K
or		645 001 4550	INDUCTOR,10U K
PR140	⚠	645 014 2499	PROTECTOR,0.4A 125V
Q1301		405 008 6809	TR 2SB808-F-SPA
or		405 151 4509	TR KTA1270-Y
or		405 151 4608	TR KTA1270-O
or		405 008 7103	TR 2SB808-G-SPA
Q1401	⚠	405 009 5306	TR 2SB927-T
or	⚠	405 009 5207	TR 2SB927-S
or	⚠	405 141 3604	TR KTA1273-Y
R1211	⚠	402 082 0709	RESISTOR 5.6 J- 2W
R1212		401 105 0504	MT-GLAZE 1K JA 1/16W
R1301		401 105 0504	MT-GLAZE 1K JA 1/16W
R1302		401 105 0306	MT-GLAZE 10 JA 1/16W
R1303		401 105 0702	MT-GLAZE 100K JA 1/16W
R1304		401 105 6605	MT-GLAZE 6.8K JA 1/16W
R1305		401 105 2805	MT-GLAZE 2.2K JA 1/16W
R1308		401 105 3406	MT-GLAZE 27K JA 1/16W
R1309		401 105 4007	MT-GLAZE 330 JA 1/16W
R1310		401 105 1600	MT-GLAZE 15K JA 1/16W
R1311		401 105 0702	MT-GLAZE 100K JA 1/16W
R1312		401 105 6605	MT-GLAZE 6.8K JA 1/16W
R1313		401 105 2904	MT-GLAZE 22K JA 1/16W
R1314		401 105 2904	MT-GLAZE 22K JA 1/16W
R1315		401 105 1600	MT-GLAZE 15K JA 1/16W
R1317		401 105 8203	MT-GLAZE 68K JA 1/16W
R1318		401 105 1501	MT-GLAZE 1.5K JA 1/16W
R1320		401 105 7404	MT-GLAZE 8.2K JA 1/16W
R1324		401 105 4205	MT-GLAZE 33K JA 1/16W
R1325		401 105 8104	MT-GLAZE 56K JA 1/16W
R1326		401 105 0504	MT-GLAZE 1K JA 1/16W
R1327		401 105 8104	MT-GLAZE 56K JA 1/16W
R1328		401 105 6605	MT-GLAZE 6.8K JA 1/16W
R1329		401 105 0603	MT-GLAZE 10K JA 1/16W
R1330		401 105 3000	MT-GLAZE 220K JA 1/16W
R1331		401 105 3000	MT-GLAZE 220K JA 1/16W
R1332		401 105 1600	MT-GLAZE 15K JA 1/16W
R1333		401 105 1105	MT-GLAZE 12K JA 1/16W
R1334		401 105 0504	MT-GLAZE 1K JA 1/16W
R1335		401 105 0603	MT-GLAZE 10K JA 1/16W
R1336		401 105 4007	MT-GLAZE 330 JA 1/16W
R1337		401 105 6605	MT-GLAZE 6.8K JA 1/16W
R1343		401 105 0702	MT-GLAZE 100K JA 1/16W
R1401		401 105 1402	MT-GLAZE 150 JA 1/16W
R1453		401 105 3307	MT-GLAZE 2.7K JA 1/16W
R1454		401 105 6506	MT-GLAZE 680 JA 1/16W
R1455		401 105 8203	MT-GLAZE 68K JA 1/16W
R1456		401 105 1006	MT-GLAZE 1.2K JA 1/16W
R1458		401 105 5103	MT-GLAZE 47 JA 1/16W
R1462		401 105 5905	MT-GLAZE 560 JA 1/16W
R1463		401 105 5905	MT-GLAZE 560 JA 1/16W
R1464		401 105 0504	MT-GLAZE 1K JA 1/16W
R1465		401 105 5905	MT-GLAZE 560 JA 1/16W
R1470		401 105 0405	MT-GLAZE 100 JA 1/16W
R1472		401 105 5301	MT-GLAZE 4.7K JA 1/16W
R1473		401 105 0702	MT-GLAZE 100K JA 1/16W
R1475		401 105 5905	MT-GLAZE 560 JA 1/16W
R1480		401 105 5905	MT-GLAZE 560 JA 1/16W
R1490		401 105 6100	MT-GLAZE 560K JA 1/16W
R1498		401 105 0405	MT-GLAZE 100 JA 1/16W
R1499		401 105 0405	MT-GLAZE 100 JA 1/16W
R1501		401 105 1501	MT-GLAZE 1.5K JA 1/16W
R1502		401 105 4106	MT-GLAZE 3.3K JA 1/16W
R1503		401 105 1501	MT-GLAZE 1.5K JA 1/16W
R1771		401 105 0504	MT-GLAZE 1K JA 1/16W
R1773		401 105 0702	MT-GLAZE 100K JA 1/16W
R1781		401 105 0504	MT-GLAZE 1K JA 1/16W
R1783		401 105 0702	MT-GLAZE 100K JA 1/16W
X1451		645 020 9024	OSC,CRYSTAL 16.9344MHZ

FRONT P.W.BOARD ASSY

REF.NO.	PART NO.	DESCRIPTION
72	614 314 9590	ASSY,PWB FRONT (Only Initial)
AH601	614 314 2621	HOLDER,LCD,HOLDER_LCD
AR601	614 315 6505	REFLECTOR,REFLECTOR_LCD
AS601	614 314 3000	DEC,SHEET,LCD,DEC_SHEET_LCD
C6010	403 350 7802	ELECT 1000U M 6.3V
or	403 325 0401	ELECT 1000U M 6.3V
or	403 196 4102	ELECT 1000U M 6.3V
C6011	403 262 8607	DL-ELECT 0.047F Z 5.5V
or	403 304 4802	DL-ELECT 0.047F Z 5.5V
CN601	645 012 5362	SOCKET,FPC 32P
D6010	407 012 4406	DIODE 1SS133
D6110	407 012 4406	DIODE 1SS133
D6111	407 012 4406	DIODE 1SS133
D6112	407 012 4406	DIODE 1SS133
D6113	407 012 4406	DIODE 1SS133
D6114	407 099 5303	ZENER DIODE MTZJ5.6B
D6115	407 099 4603	ZENER DIODE MTZJ3.9B
D6310	407 221 6109	LED FA5366X
D6311	407 221 6208	LED DB5306
IC601	410 405 4204	IC LC867240A-5V46
L6010	645 001 5441	INDUCTOR,2.2U K
LCD60	645 043 6239	LCD
Q6101	405 141 3307	TR KTC3198-GR
or	405 141 3208	TR KTC3198-Y
or	405 019 3804	TR 2SC536-G-NP
or	405 019 2708	TR 2SC536-F-NP
Q6102	405 004 5004	TR 2SA608-G-NP
or	405 004 4502	TR 2SA608-F-NP
or	405 141 3505	TR KTA1266-Y
or	405 141 3406	TR KTA1266-GR
Q6103	405 004 4502	TR 2SA608-F-NP
or	405 004 5004	TR 2SA608-G-NP
or	405 141 3505	TR KTA1266-Y
or	405 141 3406	TR KTA1266-GR
Q6105	405 000 3806	TR DTC114YS
or	405 143 0007	TR KRC107M

PARTS LIST

REF.NO.	PART NO.	DESCRIPTION
Q6106	405 000 3806	TR DTC114YS
or	405 143 0007	TR KRC107M
Q6107	405 004 5004	TR 2SA608-G-NP
or	405 004 4502	TR 2SA608-F-NP
or	405 141 3505	TR KTA1266-Y
or	405 141 3406	TR KTA1266-GR
Q6108	405 017 9709	TR 2SC3330-U
or	405 017 9600	TR 2SC3330-T
or	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
or	405 143 8706	TR KTC3199-GR
R6009	401 105 0405	MT-GLAZE 100 JA 1/16W
R6010	401 105 5103	MT-GLAZE 47 JA 1/16W
R6111	401 105 0504	MT-GLAZE 1K JA 1/16W
R6112	401 105 0504	MT-GLAZE 1K JA 1/16W
R6113	401 105 0603	MT-GLAZE 10K JA 1/16W
R6114	401 105 0603	MT-GLAZE 10K JA 1/16W
R6115	401 177 2109	MT-GLAZE 4.7M JA 1/16W
R6116	401 105 6704	MT-GLAZE 680K JA 1/16W
R6120	401 105 0603	MT-GLAZE 10K JA 1/16W
R6121	401 105 0603	MT-GLAZE 10K JA 1/16W
R6122	401 105 0603	MT-GLAZE 10K JA 1/16W
R6123	401 105 0603	MT-GLAZE 10K JA 1/16W
R6124	401 105 0603	MT-GLAZE 10K JA 1/16W
R6130	401 105 0603	MT-GLAZE 10K JA 1/16W
R6131	401 105 0702	MT-GLAZE 100K JA 1/16W
R6132	401 105 5400	MT-GLAZE 47K JA 1/16W
R6133	401 105 0504	MT-GLAZE 1K JA 1/16W
R6134	401 105 0603	MT-GLAZE 10K JA 1/16W
R6135	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R6136	401 105 0702	MT-GLAZE 100K JA 1/16W
R6137	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R6140	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R6141	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R6142	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R6143	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R6145	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R6146	401 105 5400	MT-GLAZE 47K JA 1/16W
R6148	401 105 0603	MT-GLAZE 10K JA 1/16W
R6150	401 105 4502	MT-GLAZE 390 JA 1/16W
R6151	401 105 5202	MT-GLAZE 470 JA 1/16W
R6152	401 105 6506	MT-GLAZE 680 JA 1/16W
R6153	401 105 7305	MT-GLAZE 820 JA 1/16W
R6154	401 105 0504	MT-GLAZE 1K JA 1/16W
R6155	401 105 1006	MT-GLAZE 1.2K JA 1/16W
R6156	401 105 2003	MT-GLAZE 1.8K JA 1/16W
R6157	401 105 3307	MT-GLAZE 2.7K JA 1/16W
R6158	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R6175	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R6176	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R6250	401 105 4502	MT-GLAZE 390 JA 1/16W
R6251	401 105 5202	MT-GLAZE 470 JA 1/16W
R6252	401 105 6506	MT-GLAZE 680 JA 1/16W
R6253	401 105 7305	MT-GLAZE 820 JA 1/16W
R6254	401 105 0504	MT-GLAZE 1K JA 1/16W
R6255	401 105 1006	MT-GLAZE 1.2K JA 1/16W
R6256	401 105 2003	MT-GLAZE 1.8K JA 1/16W
R6257	401 105 3307	MT-GLAZE 2.7K JA 1/16W
R6258	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R6259	401 105 7404	MT-GLAZE 8.2K JA 1/16W
R6310	401 105 4007	MT-GLAZE 330 JA 1/16W
R6311	401 105 2706	MT-GLAZE 220 JA 1/16W
R6412	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
S6001	645 044 6535	SWITCH,ROTARY(ENCODER)
S6110	614 240 1002	SWITCH,TACT
or	614 220 5471	SWITCH,TACT
or	645 006 5958	SWITCH,PUSH 1P-1T

REF.NO.	PART NO.	DESCRIPTION
S6111	614 220 5471	SWITCH,TACT
or	614 240 1002	SWITCH,TACT
or	645 006 5958	SWITCH,PUSH 1P-1T
S6112	645 006 5958	SWITCH,PUSH 1P-1T
or	614 240 1002	SWITCH,TACT
or	614 220 5471	SWITCH,TACT
S6113	645 006 5958	SWITCH,PUSH 1P-1T
or	614 240 1002	SWITCH,TACT
or	614 220 5471	SWITCH,TACT
S6114	645 006 5958	SWITCH,PUSH 1P-1T
or	614 240 1002	SWITCH,TACT
or	614 220 5471	SWITCH,TACT
S6115	614 220 5471	SWITCH,TACT
or	614 240 1002	SWITCH,TACT
or	645 006 5958	SWITCH,PUSH 1P-1T
S6116	645 006 5958	SWITCH,PUSH 1P-1T
or	614 240 1002	SWITCH,TACT
or	614 220 5471	SWITCH,TACT
S6117	645 006 5958	SWITCH,PUSH 1P-1T
or	614 240 1002	SWITCH,TACT
or	614 220 5471	SWITCH,TACT
S6118	645 006 5958	SWITCH,PUSH 1P-1T
or	614 240 1002	SWITCH,TACT
or	614 220 5471	SWITCH,TACT
S6119	614 220 5471	SWITCH,TACT
or	614 240 1002	SWITCH,TACT
or	645 006 5958	SWITCH,PUSH 1P-1T
S6210	645 006 5958	SWITCH,PUSH 1P-1T
or	614 240 1002	SWITCH,TACT
or	614 220 5471	SWITCH,TACT
S6211	645 006 5958	SWITCH,PUSH 1P-1T
or	614 240 1002	SWITCH,TACT
or	614 220 5471	SWITCH,TACT
S6212	645 006 5958	SWITCH,PUSH 1P-1T
or	614 240 1002	SWITCH,TACT
or	614 220 5471	SWITCH,TACT
S6213	645 006 5958	SWITCH,PUSH 1P-1T
or	614 240 1002	SWITCH,TACT
or	614 220 5471	SWITCH,TACT
S6214	645 006 5958	SWITCH,PUSH 1P-1T
or	614 240 1002	SWITCH,TACT
or	614 220 5471	SWITCH,TACT
S6215	645 006 5958	SWITCH,PUSH 1P-1T
or	614 240 1002	SWITCH,TACT
or	614 220 5471	SWITCH,TACT
S6216	645 006 5958	SWITCH,PUSH 1P-1T
or	614 240 1002	SWITCH,TACT
or	614 220 5471	SWITCH,TACT
S6217	614 220 5471	SWITCH,TACT
or	614 240 1002	SWITCH,TACT
or	645 006 5958	SWITCH,PUSH 1P-1T
S6218	614 240 1002	SWITCH,TACT
or	645 006 5958	SWITCH,PUSH 1P-1T
or	614 220 5471	SWITCH,TACT
S6219	645 006 5958	SWITCH,PUSH 1P-1T
or	614 240 1002	SWITCH,TACT
or	614 220 5471	SWITCH,TACT
S6220	645 006 5958	SWITCH,PUSH 1P-1T
or	614 240 1002	SWITCH,TACT
or	614 220 5471	SWITCH,TACT
SE601	407 217 1101	PHOTO DIODE SPS-442-1G
X6101	645 032 1627	OSC,CRYSTAL 32.768KHZ
X6102	645 018 6103	OSC,CERAMIC 6.000MHZ
	614 317 3397	CUSHION

PARTS LIST

TUNER & AMPLIFIER P.W.BOARD ASSY

REF.NO.	PART NO.	DESCRIPTION
73	614 315 1289	ASSY,PWB TUNER & AMPLIFIER (Only Initial)
C2102	404 079 6305	ELECT 10U M 50V
C2306	404 079 6008	ELECT 1U M 50V
C2307	404 079 6305	ELECT 10U M 50V
C2311	404 079 6305	ELECT 10U M 50V
C2313	404 079 6008	ELECT 1U M 50V
C2321	404 079 6008	ELECT 1U M 50V
C2327	404 079 6305	ELECT 10U M 50V
C2328	404 079 6305	ELECT 10U M 50V
C2451	404 079 6305	ELECT 10U M 50V
C2457	403 259 0508	NP-ELECT 1U M 50V
C2503	404 079 6305	ELECT 10U M 50V
C4505	404 079 6008	ELECT 1U M 50V
C4555	404 079 6107	ELECT 47U M 16V
C4556	404 079 6305	ELECT 10U M 50V
C4560	404 079 6305	ELECT 10U M 50V
C4600	404 079 6008	ELECT 1U M 50V
C4601	403 057 3503	POLYESTER 0.1U K 50V
C4602	404 079 6305	ELECT 10U M 50V
C4603	404 079 6305	ELECT 10U M 50V
C4605	403 061 3605	POLYESTER 0.039U J 50V
C4606	403 061 7702	POLYESTER 4700P J 50V
C4607	403 059 3204	POLYESTER 2200P J 50V
C4608	403 060 2807	POLYESTER 0.027U K 50V
C4609	404 079 6107	ELECT 47U M 16V
C4702	404 079 6008	ELECT 1U M 50V
C4704	404 079 6008	ELECT 1U M 50V
C4707	404 079 6008	ELECT 1U M 50V
C4720	404 079 6008	ELECT 1U M 50V
C4721	404 079 6008	ELECT 1U M 50V
C4722	404 079 6008	ELECT 1U M 50V
C4723	404 079 6008	ELECT 1U M 50V
C4724	404 079 6008	ELECT 1U M 50V
C4725	404 079 6008	ELECT 1U M 50V
C4731	404 079 6008	ELECT 1U M 50V
C4732	404 079 6305	ELECT 10U M 50V
C4733	404 079 6008	ELECT 1U M 50V
C4734	404 079 6008	ELECT 1U M 50V
C4742	403 277 4106	ELECT 1000U M 25V
C4743	403 057 3503	POLYESTER 0.1U K 50V
C4802	404 079 6008	ELECT 1U M 50V
C4804	404 079 6008	ELECT 1U M 50V
C4807	404 079 6008	ELECT 1U M 50V
C4820	404 079 6008	ELECT 1U M 50V
C4821	404 079 6008	ELECT 1U M 50V
C4822	404 079 6008	ELECT 1U M 50V
C4823	404 079 6008	ELECT 1U M 50V
C4824	404 079 6008	ELECT 1U M 50V
C4825	404 079 6008	ELECT 1U M 50V
C4831	404 079 6008	ELECT 1U M 50V
C4832	404 079 6305	ELECT 10U M 50V
C4833	404 079 6008	ELECT 1U M 50V
C4834	404 079 6008	ELECT 1U M 50V
C4842	403 277 4106	ELECT 1000U M 25V
C4843	403 057 3503	POLYESTER 0.1U K 50V
C4924	404 079 6206	ELECT 10U M 25V
C4932	404 079 6008	ELECT 1U M 50V
C4950	403 332 7400	ELECT 2200U M 50V
C4984	403 194 3800	ELECT 2200U M 25V
or	403 329 3309	ELECT 2200U M 25V
CN201	614 255 5750	TERMINAL
or	645 032 6394	TERMINAL
CN400	645 012 5362	SOCKET,FPC 32P
CN430	645 005 7373	PLUG,3P
or	614 310 2441	PLUG,3P
CN431	407 218 1100	PHOTO COUPLE GP1FA550TZ
or	407 215 1608	PHOTO COUPLE TOTX178A
CN440	614 310 2472	PLUG,6P
or	645 005 8127	PLUG,6P
CN441	614 310 2748	PLUG,3P,POWER
or	645 004 2898	PLUG,3P,POWER
CN445	614 310 2519	PLUG,10P
or	645 005 8158	PLUG,10P
CN450	614 276 6835	SOCKET,JACK
CN455	645 011 6384	JACK,PHONE D3.6,HEADPHONE
CN456	645 006 1875	PLUG,2P,SPEAKER
CN457	645 006 1875	PLUG,2P,SPEAKER
CN458	645 043 8905	JACK,RCA
CT251	645 032 5236	TRIMMER,18PF
CT252	645 032 5663	TRIMMER,7PF
D2103	407 012 4406	DIODE 1SS133
D2104	407 012 4406	DIODE 1SS133
D2151	407 012 4406	DIODE 1SS133
D2153	407 105 1305	VARACTOR DI SVC342L-V
or	407 105 1602	VARACTOR DI SVC342M-V
D2301	407 063 9108	ZENER DIODE MTZJ6.8B
D2450	407 012 4406	DIODE 1SS133
D2451	407 012 4406	DIODE 1SS133
D2452	407 153 7502	ZENER DIODE GZS3.0B
D2453	407 012 4406	DIODE 1SS133
D2454	407 012 4406	DIODE 1SS133
D2455	407 012 4406	DIODE 1SS133
D2456	407 012 4406	DIODE 1SS133
D2466	407 012 4406	DIODE 1SS133
D2467	407 012 4406	DIODE 1SS133
D4500	407 012 4406	DIODE 1SS133
D4960	407 012 4406	DIODE 1SS133
D4991	407 099 6805	ZENER DIODE MTZJ13B
D4992	⚠ 407 099 6003	ZENER DIODE MTZJ9.1B
D4993	407 012 4406	DIODE 1SS133
HS401	614 314 3017	HEAT SINK,HEATSINK
IC231	409 474 3201	IC LA1844ML
IC241	409 439 4502	IC LC72121M-D
IC251	409 447 3900	IC LC72722
IC440	409 451 7406	IC AN7348K
IC441	409 500 2208	IC LC75343-MPB
IC442	⚠ 409 451 2104	IC TDA7269
IC443	409 189 3404	IC BA7755A
IC445	409 469 6200	IC MM1453XF
IC446	⚠ 409 039 9204	IC NJM78L05A
L2100	⚠ 645 037 2858	CORE,PIPE
L2101	⚠ 645 037 2858	CORE,PIPE
L2151	645 040 2685	TRANS,ANT,796KHZ
L2152	645 046 7998	TRANS,ANT,796KHZ
L2153	645 040 2708	TRANS,OSC,796KHZ
L2154	645 040 2722	TRANS,OSC,796KHZ
L2301	645 004 0580	INDUCTOR,1M J
L2451	645 031 7842	INDUCTOR,100U K
or	645 001 4581	INDUCTOR,100U K
L2501	645 031 7842	INDUCTOR,100U K
or	645 001 4581	INDUCTOR,100U K
L2502	645 031 7842	INDUCTOR,100U K
or	645 001 4581	INDUCTOR,100U K
L4600	645 006 1523	INDUCTOR,470U J
L4601	645 006 1523	INDUCTOR,470U J
L4602	645 037 2858	CORE,PIPE
L4603	645 006 1523	INDUCTOR,470U J
L4604	645 037 2858	CORE,PIPE
L4781	645 006 9864	INDUCTOR,80U
L4782	645 006 9864	INDUCTOR,80U
L4881	645 006 9864	INDUCTOR,80U
L4882	645 006 9864	INDUCTOR,80U
LUG45	614 129 9068	LUG
LUG46	614 129 9082	LUG

PARTS LIST

REF.NO.	PART NO.	DESCRIPTION
PR495	⚠ 645 014 2505	PROTECTOR,0.8A 125V
PR496	⚠ 645 014 2512	PROTECTOR,1A 125V
Q2140	405 020 7402	TR 2SC945A-P
or	405 020 7204	TR 2SC945A-K
or	405 019 3705	TR 2SC536-G-AUD-SPA
or	405 017 9709	TR 2SC3330-U
or	405 017 9600	TR 2SC3330-T
or	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
or	405 143 8706	TR KTC3199-GR
Q2152	405 151 4202	TR KTC3193-O
or	405 016 0806	TR 2SC2839-E
or	405 151 4103	TR KTC3193-Y
Q2153	405 016 0806	TR 2SC2839-E
or	405 151 4103	TR KTC3193-Y
or	405 151 4202	TR KTC3193-O
Q2154	405 016 0806	TR 2SC2839-E
or	405 151 4103	TR KTC3193-Y
or	405 151 4202	TR KTC3193-O
Q2155	405 016 0806	TR 2SC2839-E
or	405 151 4103	TR KTC3193-Y
or	405 151 4202	TR KTC3193-O
Q2156	405 016 0806	TR 2SC2839-E
or	405 151 4103	TR KTC3193-Y
or	405 151 4202	TR KTC3193-O
Q2157	405 035 8609	TR 2SK544-F
or	405 035 8708	TR 2SK544-E
Q2201	405 016 0806	TR 2SC2839-E
or	405 151 4103	TR KTC3193-Y
or	405 151 4202	TR KTC3193-O
Q2310	405 020 7402	TR 2SC945A-P
or	405 020 7204	TR 2SC945A-K
or	405 019 3705	TR 2SC536-G-AUD-SPA
or	405 017 9709	TR 2SC3330-U
or	405 017 9600	TR 2SC3330-T
or	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
or	405 143 8706	TR KTC3199-GR
Q2451	405 078 2404	TR BN1A4P
or	405 000 0904	TR DTA114YS
or	405 151 5209	TR KRA107M
or	405 036 3702	TR 2SA1564
Q2452	405 078 2404	TR BN1A4P
or	405 000 0904	TR DTA114YS
or	405 036 3702	TR 2SA1564
or	405 151 5209	TR KRA107M
Q2453	405 036 3702	TR 2SA1564
or	405 151 5209	TR KRA107M
or	405 000 0904	TR DTA114YS
or	405 078 2404	TR BN1A4P
Q2502	405 036 3702	TR 2SA1564
or	405 151 5209	TR KRA107M
or	405 000 0904	TR DTA114YS
or	405 078 2404	TR BN1A4P
Q4410	405 141 3406	TR KTA1266-GR
or	405 141 3505	TR KTA1266-Y
or	405 004 4502	TR 2SA608-F-NP
or	405 004 5004	TR 2SA608-G-NP
Q4501	405 000 3806	TR DTC114YS
or	405 143 0007	TR KRC107M
Q4502	405 143 0007	TR KRC107M
or	405 000 3806	TR DTC114YS
Q4600	405 155 0002	TR MPSA56
Q4601	405 000 3806	TR DTC114YS
or	405 143 0007	TR KRC107M
Q4602	405 019 3804	TR 2SC536-G-NP
or	405 019 2708	TR 2SC536-F-NP
or	405 141 3307	TR KTC3198-GR
or	405 141 3208	TR KTC3198-Y

REF.NO.	PART NO.	DESCRIPTION
Q4603	405 141 3208	TR KTC3198-Y
or	405 019 2708	TR 2SC536-F-NP
or	405 141 3307	TR KTC3198-GR
or	405 019 3804	TR 2SC536-G-NP
Q4700	405 000 3806	TR DTC114YS
or	405 143 0007	TR KRC107M
Q4800	405 000 3806	TR DTC114YS
or	405 143 0007	TR KRC107M
Q4950	405 141 3307	TR KTC3198-GR
or	405 019 2708	TR 2SC536-F-NP
or	405 019 3804	TR 2SC536-G-NP
or	405 141 3208	TR KTC3198-Y
Q4960	405 155 0002	TR MPSA56
Q4961	405 155 0002	TR MPSA56
Q4962	405 000 3806	TR DTC114YS
or	405 143 0007	TR KRC107M
Q4963	405 000 3806	TR DTC114YS
or	405 143 0007	TR KRC107M
Q4990	⚠ 405 138 6403	TR KTD2058Y
or	⚠ 405 095 1602	TR 2SD2061-E
or	⚠ 405 095 1701	TR 2SD2061-F
Q4991	⚠ 405 095 1602	TR 2SD2061-E
or	⚠ 405 095 1701	TR 2SD2061-F
or	⚠ 405 138 6403	TR KTD2058Y
Q4992	405 141 3703	TR KTA1271-Y
or	405 008 2405	TR 2SB698-F
or	405 008 2504	TR 2SB698-G
Q4993	405 141 3703	TR KTA1271-Y
or	405 008 2405	TR 2SB698-F
or	405 008 2504	TR 2SB698-G
Q4994	405 000 3806	TR DTC114YS
or	405 143 0007	TR KRC107M
R2000	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R2100	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R2102	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R2103	401 105 0603	MT-GLAZE 10K JA 1/16W
R2104	401 105 4502	MT-GLAZE 390 JA 1/16W
R2106	401 105 0405	MT-GLAZE 100 JA 1/16W
R2108	401 105 4007	MT-GLAZE 330 JA 1/16W
R2114	401 105 0405	MT-GLAZE 100 JA 1/16W
R2131	401 105 5400	MT-GLAZE 47K JA 1/16W
R2140	401 105 3109	MT-GLAZE 27 JA 1/16W
R2141	401 105 0603	MT-GLAZE 10K JA 1/16W
R2148	401 105 7602	MT-GLAZE 820K JA 1/16W
R2149	401 105 0702	MT-GLAZE 100K JA 1/16W
R2151	401 105 0603	MT-GLAZE 10K JA 1/16W
R2153	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R2154	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R2155	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R2156	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R2157	401 105 5509	MT-GLAZE 470K JA 1/16W
R2158	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R2159	401 105 8005	MT-GLAZE 1M JA 1/16W
R2162	401 105 0702	MT-GLAZE 100K JA 1/16W
R2167	401 105 2706	MT-GLAZE 220 JA 1/16W
R2168	401 105 0405	MT-GLAZE 100 JA 1/16W
R2169	401 105 6506	MT-GLAZE 680 JA 1/16W
R2201	401 105 2706	MT-GLAZE 220 JA 1/16W
R2202	401 105 4007	MT-GLAZE 330 JA 1/16W
R2203	401 105 4007	MT-GLAZE 330 JA 1/16W
R2204	401 105 3000	MT-GLAZE 220K JA 1/16W
R2301	401 105 0405	MT-GLAZE 100 JA 1/16W
R2302	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R2303	401 105 0702	MT-GLAZE 100K JA 1/16W
R2304	401 105 0603	MT-GLAZE 10K JA 1/16W
R2305	401 105 0603	MT-GLAZE 10K JA 1/16W
R2306	401 105 3307	MT-GLAZE 2.7K JA 1/16W
R2307	401 105 8203	MT-GLAZE 68K JA 1/16W

PARTS LIST

REF.NO.	PART NO.	DESCRIPTION
R2308	401 105 4205	MT-GLAZE 33K JA 1/16W
R2309	401 105 4205	MT-GLAZE 33K JA 1/16W
R2311	401 105 0405	MT-GLAZE 100 JA 1/16W
R2312	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R2331	401 105 5400	MT-GLAZE 47K JA 1/16W
R2452	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R2453	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R2454	401 105 0603	MT-GLAZE 10K JA 1/16W
R2455	401 105 2706	MT-GLAZE 220 JA 1/16W
R2458	401 105 0603	MT-GLAZE 10K JA 1/16W
R2459	401 105 0603	MT-GLAZE 10K JA 1/16W
R2460	401 105 0603	MT-GLAZE 10K JA 1/16W
R2461	401 105 0504	MT-GLAZE 1K JA 1/16W
R2462	401 105 0504	MT-GLAZE 1K JA 1/16W
R2463	401 105 0504	MT-GLAZE 1K JA 1/16W
R2464	401 105 0504	MT-GLAZE 1K JA 1/16W
R2471	401 105 0603	MT-GLAZE 10K JA 1/16W
R2503	401 105 0603	MT-GLAZE 10K JA 1/16W
R2504	401 105 0702	MT-GLAZE 100K JA 1/16W
R2519	401 105 0603	MT-GLAZE 10K JA 1/16W
R2520	401 105 0504	MT-GLAZE 1K JA 1/16W
R2701	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R2712	401 105 0702	MT-GLAZE 100K JA 1/16W
R2801	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R2812	401 105 0702	MT-GLAZE 100K JA 1/16W
R4400	401 105 0603	MT-GLAZE 10K JA 1/16W
R4401	401 105 5400	MT-GLAZE 47K JA 1/16W
R4402	401 105 1600	MT-GLAZE 15K JA 1/16W
R4403	401 105 4007	MT-GLAZE 330 JA 1/16W
R4500	401 105 0504	MT-GLAZE 1K JA 1/16W
R4501	401 105 0504	MT-GLAZE 1K JA 1/16W
R4502	401 105 2102	MT-GLAZE 18K JA 1/16W
R4503	401 105 1600	MT-GLAZE 15K JA 1/16W
R4504	401 105 0603	MT-GLAZE 10K JA 1/16W
R4550	401 177 2406	MT-GLAZE 10M JA 1/16W
R4551	401 105 2904	MT-GLAZE 22K JA 1/16W
R4552	401 105 2904	MT-GLAZE 22K JA 1/16W
R4553	401 105 2904	MT-GLAZE 22K JA 1/16W
R4560	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R4600	401 105 2904	MT-GLAZE 22K JA 1/16W
R4603	401 105 8104	MT-GLAZE 56K JA 1/16W
R4604	401 105 4700	MT-GLAZE 39K JA 1/16W
R4605	401 105 0504	MT-GLAZE 1K JA 1/16W
R4606	401 105 4700	MT-GLAZE 39K JA 1/16W
R4608	401 105 8203	MT-GLAZE 68K JA 1/16W
R4700	401 105 0405	MT-GLAZE 100 JA 1/16W
R4701	401 105 3901	MT-GLAZE 33 JA 1/16W
R4702	401 105 1204	MT-GLAZE 120K JA 1/16W
R4704	401 105 2904	MT-GLAZE 22K JA 1/16W
R4705	401 105 7404	MT-GLAZE 8.2K JA 1/16W
R4720	401 105 0603	MT-GLAZE 10K JA 1/16W
R4721	401 105 4700	MT-GLAZE 39K JA 1/16W
R4722	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R4723	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R4725	401 105 3000	MT-GLAZE 220K JA 1/16W
R4726	401 105 0702	MT-GLAZE 100K JA 1/16W
R4727	401 105 0603	MT-GLAZE 10K JA 1/16W
R4728	401 105 3000	MT-GLAZE 220K JA 1/16W
R4729	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R4730	401 105 0603	MT-GLAZE 10K JA 1/16W
R4731	401 105 0702	MT-GLAZE 100K JA 1/16W
R4732	401 105 1600	MT-GLAZE 15K JA 1/16W
R4733	401 105 1600	MT-GLAZE 15K JA 1/16W
R4734	401 105 1600	MT-GLAZE 15K JA 1/16W
R4735	401 105 1600	MT-GLAZE 15K JA 1/16W
R4740	401 105 4601	MT-GLAZE 3.9K JA 1/16W
R4741	401 105 2102	MT-GLAZE 18K JA 1/16W
R4742	⚠ 402 071 1304	FUSIBLE RES 2.2 JA 1/4W
R4750	401 105 1105	MT-GLAZE 12K JA 1/16W
R4751	401 105 4700	MT-GLAZE 39K JA 1/16W
R4760	401 105 0306	MT-GLAZE 10 JA 1/16W
R4800	401 105 0405	MT-GLAZE 100 JA 1/16W
R4801	401 105 3901	MT-GLAZE 33 JA 1/16W
R4802	401 105 1204	MT-GLAZE 120K JA 1/16W
R4804	401 105 2904	MT-GLAZE 22K JA 1/16W
R4805	401 105 7404	MT-GLAZE 8.2K JA 1/16W
R4820	401 105 0603	MT-GLAZE 10K JA 1/16W
R4821	401 105 4700	MT-GLAZE 39K JA 1/16W
R4822	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R4823	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R4825	401 105 3000	MT-GLAZE 220K JA 1/16W
R4826	401 105 0702	MT-GLAZE 100K JA 1/16W
R4827	401 105 0603	MT-GLAZE 10K JA 1/16W
R4828	401 105 3000	MT-GLAZE 220K JA 1/16W
R4829	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R4830	401 105 0603	MT-GLAZE 10K JA 1/16W
R4831	401 105 0702	MT-GLAZE 100K JA 1/16W
R4832	401 105 1600	MT-GLAZE 15K JA 1/16W
R4833	401 105 1600	MT-GLAZE 15K JA 1/16W
R4834	401 105 1600	MT-GLAZE 15K JA 1/16W
R4835	401 105 1600	MT-GLAZE 15K JA 1/16W
R4840	401 105 4601	MT-GLAZE 3.9K JA 1/16W
R4841	401 105 2102	MT-GLAZE 18K JA 1/16W
R4842	⚠ 402 071 1304	FUSIBLE RES 2.2 JA 1/4W
R4850	401 105 1105	MT-GLAZE 12K JA 1/16W
R4851	401 105 4700	MT-GLAZE 39K JA 1/16W
R4860	401 105 0306	MT-GLAZE 10 JA 1/16W
R4920	401 105 2102	MT-GLAZE 18K JA 1/16W
R4921	401 105 2102	MT-GLAZE 18K JA 1/16W
R4922	401 105 1600	MT-GLAZE 15K JA 1/16W
R4923	401 105 0603	MT-GLAZE 10K JA 1/16W
R4927	401 105 0405	MT-GLAZE 100 JA 1/16W
R4928	401 105 4700	MT-GLAZE 39K JA 1/16W
R4929	401 105 1105	MT-GLAZE 12K JA 1/16W
R4930	401 105 0603	MT-GLAZE 10K JA 1/16W
R4950	401 105 6506	MT-GLAZE 680 JA 1/16W
R4962	401 105 0405	MT-GLAZE 100 JA 1/16W
R4963	401 105 0405	MT-GLAZE 100 JA 1/16W
R4965	401 105 5202	MT-GLAZE 470 JA 1/16W
R4966	401 105 5202	MT-GLAZE 470 JA 1/16W
R4967	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R4994	401 105 5301	MT-GLAZE 4.7K JA 1/16W
S0001	614 317 3007	SHIELD,PLATE
S4901	614 215 9828	SWITCH,TACT
SA401	411 021 6405	SCR S-TPG BIN 3X8
SA402	411 021 6405	SCR S-TPG BIN 3X8
SA403	411 021 6405	SCR S-TPG BIN 3X8
SA404	411 021 6405	SCR S-TPG BIN 3X8
SA405	411 021 6405	SCR S-TPG BIN 3X8
SH201	614 310 5404	SHIELD,ANTENA
T2002	645 046 2023	FILTER,450KHZ
U2101	645 043 6697	TUNER,FM
W4104	614 317 5384	WIRE,UL1007-AWG22B
W4105	614 317 5384	WIRE,UL1007-AWG22B
X2451	645 023 4965	OSC,CRYSTAL 7.2MHZ
X2501	645 035 8326	OSC,CRYSTAL 4.332MHZ
XF221	645 010 0079	CERAMIC FILTER 10.70MHZ
or	645 010 7665	CERAMIC FILTER 10.70MHZ
or	614 240 2917	FILTER,CERAM
XF222	645 010 7665	CERAMIC FILTER 10.70MHZ
or	645 010 0079	CERAMIC FILTER 10.70MHZ
or	614 240 2917	FILTER,CERAM
XF231	645 041 9324	CERAMIC FILTER 450KHZ
XF233	645 040 9981	TRANS,IF 10.7MHZ
or	645 039 9923	TRANS,IF 10.7MHZ

PARTS LIST

POWER TRANSFORMER, PRIMARY P.WBOARD ASSY

REF.NO.	PART NO.	DESCRIPTION
74	614 314 9613	ASSY,PWB POWER TRNASFORMER PRIMARY (Only Initial)
CN411	614 017 8203	TERMINAL BOARD
CN412	614 017 8203	TERMINAL BOARD
L4191	⚠ 645 041 3087	INDUCTOR,180U
or	⚠ 645 038 6053	INDUCTOR,181U
or	⚠ 645 017 8061	INDUCTOR,181M

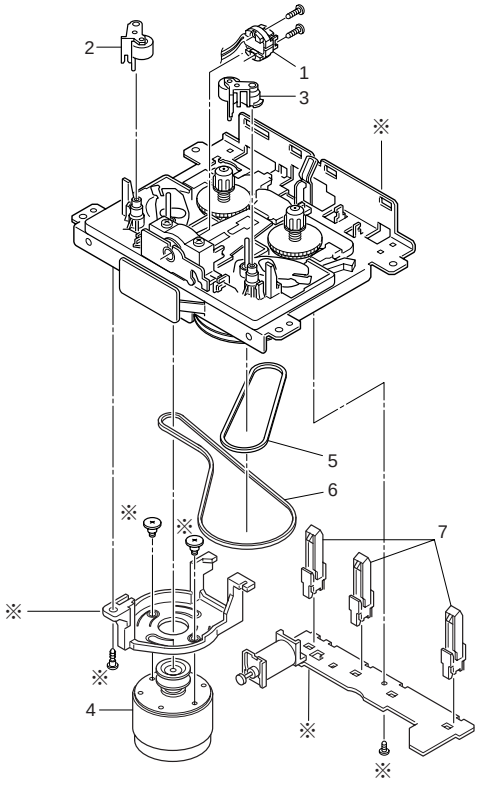
POWER TRANSFORMER, SECONDARY P.WBOARD ASSY

REF.NO.	PART NO.	DESCRIPTION
75	614 314 9620	ASSY,PWB POWER TRNASFORMER SECONDARY (Only Initial)
CN420	614 020 1222	SOCKET,3P
CN421	614 316 8003	ASSY,WIRE,PT-AMPWIRE
D4280	⚠ 407 196 5800	DIODE 1N5402BD82
D4281	⚠ 407 196 5800	DIODE 1N5402BD82
D4282	⚠ 407 196 5800	DIODE 1N5402BD82
D4283	⚠ 407 196 5800	DIODE 1N5402BD82
D4284	⚠ 407 098 3300	DIODE RL153-BF-S2
FCL41	⚠ 645 006 4760	HOLDER,FUSE
or	⚠ 645 031 7903	HOLDER,FUSE
FCL42	⚠ 645 006 4760	HOLDER,FUSE
or	⚠ 645 031 7903	HOLDER,FUSE
PR420	⚠ 645 014 2567	PROTECTOR,2.5A 125V

CD LID SW P.A.BOARD ASSY

REF.NO.	PART NO.	DESCRIPTION
76	614 316 5170	ASSY,PWB CD LID SW (Only Initial)
S1900	645 044 8782	SWITCH,LEVER
S1901	645 044 8799	SWITCH,LEVER

PARTS LIST(TAPE MECHANISM)



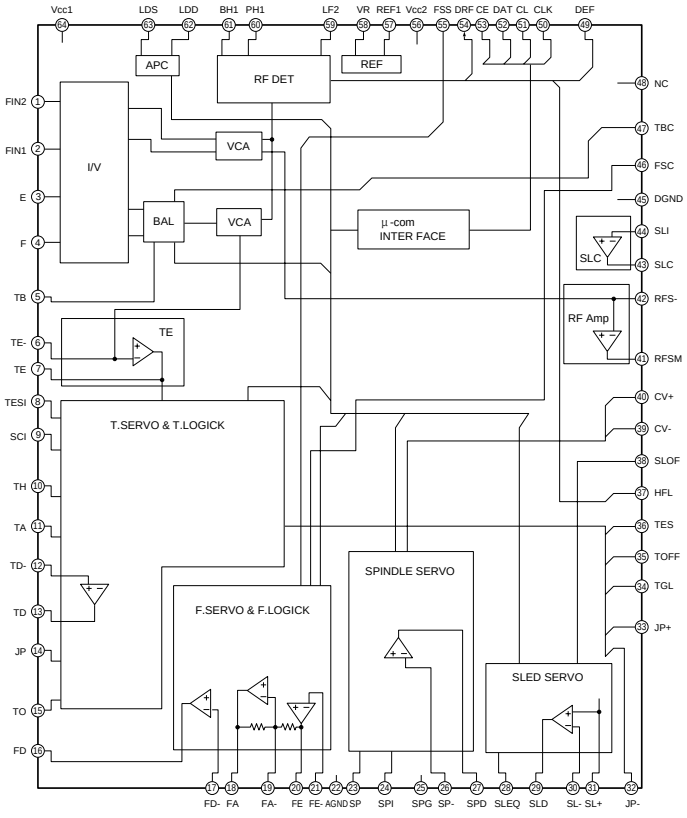
TAPE MECHANISM

REF.NO.	PART NO.	DESCRIPTION
	614 315 4839	ASSY,MECHA,TM-DA370TN-SH
1	645 045 1799	R/P,E HEAD KC-9142EA-0321
2	645 010 9454	PINCH ROLLER(R) ASSY
3	645 010 9447	PINCH ROLLER(F) ASSY
4	645 045 1751	ASSY,MOTOR
5	645 045 1959	RF BELT
6	645 045 1997	MAIN BELT
7	645 045 2048	DETECT SWITCH MXS01190

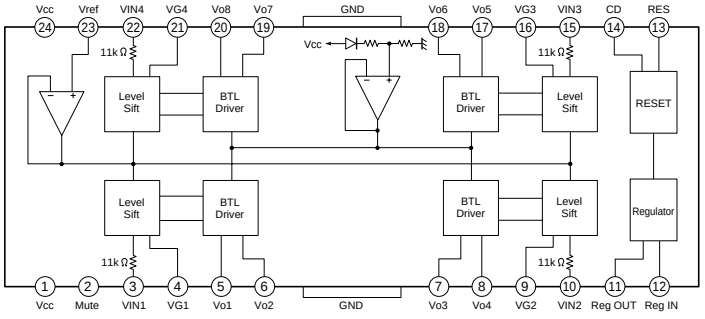
※N.S.P : Not supplied as service parts.

IC BLOCK DIAGRAM & DESCRIPTION

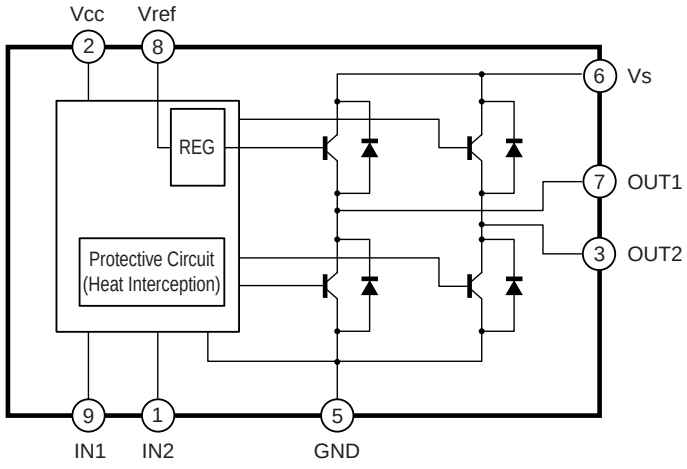
IC101 LA9241M (Servo Signal Processor)


Vcc1 LDS LDD BH1 PH1 LF2 VR REF1 Vcc2 FSS DRF CE DAT CL CLK DEF
APC
RF DET
REF
I/V
VCA
BAL
VCA
μ -com INTER FACE
SLC
RF Amp
TE
T.SERVO & T.LOGICK
F.SERVO & F.LOGICK
SPINDLE SERVO
SLED SERVO
FIN2 FIN1 E F TB TE- TE TESI SCI TH TA TD- TD JP TO FD
NC TBC FSC DGND SLI SLC RFS- RFSM CV+ CV- SLOF HFL TES TOFF TGL JP+
FD- FA FA- FE FE- AGND SP SPI SPG SP- SPD SLEQ SLD SL- SL+ JP-

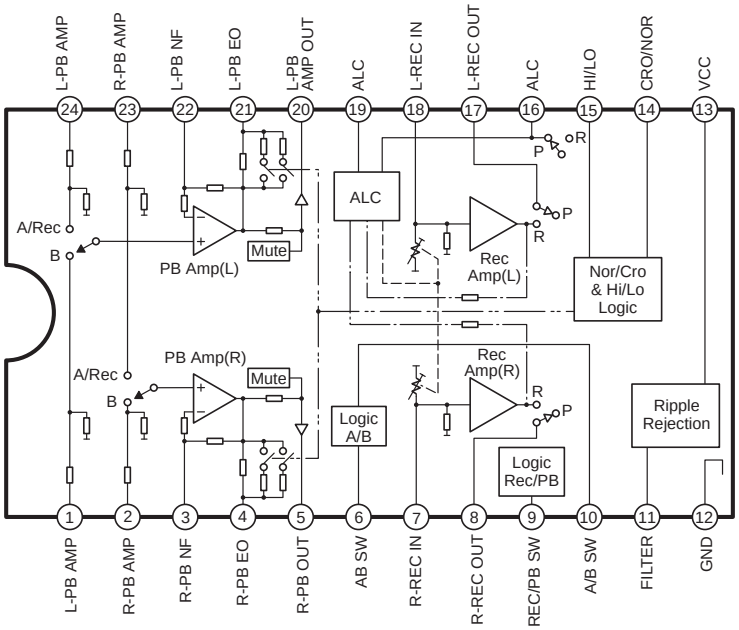
IC103 LA6541 (Pick-up Actuator & Motor Driver)


Vcc Vref VIN4 VG4 Vo8 Vo7 GND Vo6 Vo5 VG3 VIN3 CD RES
11kΩ
Level Sift
BTL Driver
RESET
Regulator
Vcc Mute VIN1 VG1 Vo1 Vo2 GND Vo3 Vo4 VG2 VIN2 Reg OUT Reg IN

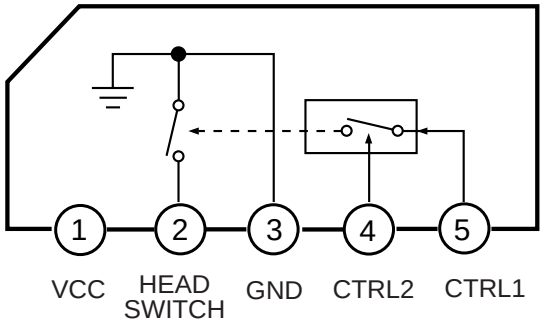
IC104 TA7291S(Bridge Driver)



IC440 AN7348K (Play/Rec Pre Amp)


L-PB AMP R-PB AMP L-PB NF L-PB EO L-PB AMP OUT ALC L-REC IN L-REC OUT ALC HI/LO CRO/NOR VCC
A/Rec B Mute PB Amp(L)
ALC
Rec Amp(L)
Nor/Cro & Hi/Lo Logic
PB Amp(R)
Rec Amp(R)
Logic A/B
Logic Rec/PB
Ripple Rejection
L-PB AMP R-PB AMP R-PB NF R-PB EO R-PB OUT AB SW R-REC IN R-REC OUT REC/PB SW A/B SW FILTER GND

IC443 BA7755A (Head Switch)

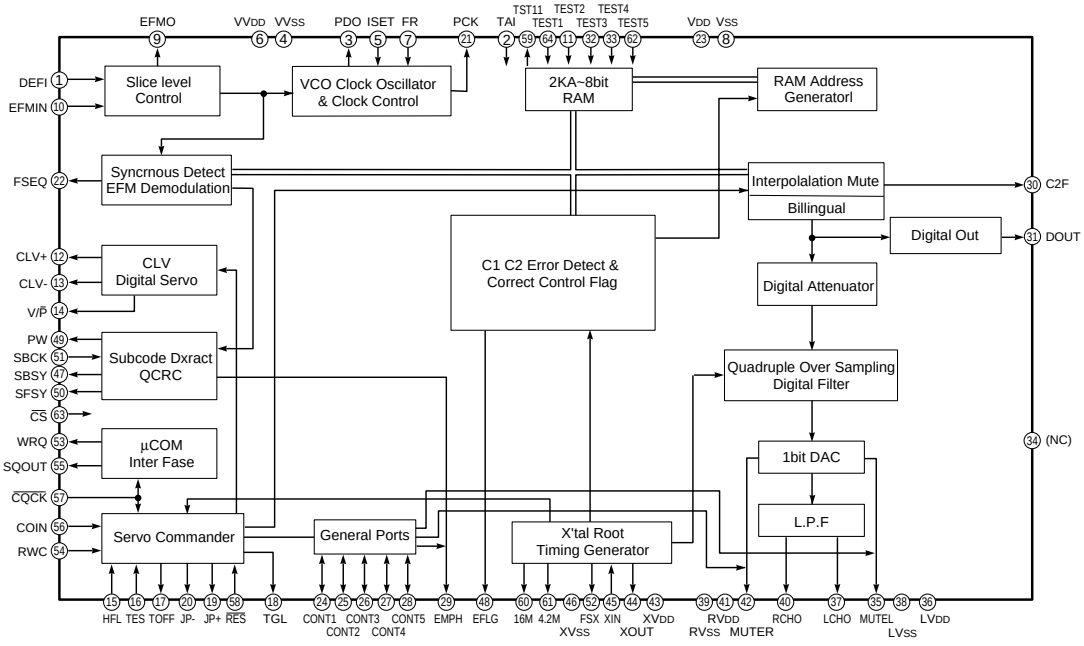


IC BLOCK DIAGRAM & DESCRIPTION

IC102 LC78622NE (Digital Signal Processor)

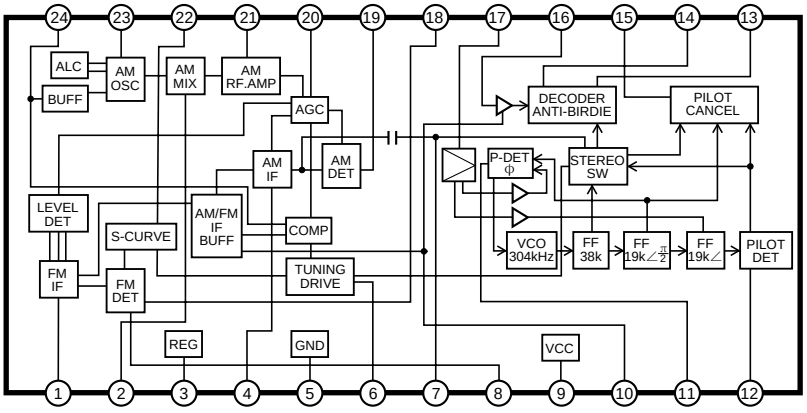
No.	Pin Name	I/O	Function
1	DEFI	I	Input terminal for detect signal of defect
2	TAI	I	Input terminal for test.
3	PDO	O	The phase comparison output terminal for external VCO control.
4	VVSS	-	Ground terminal for built-in VCO
5	ISET	I	Resistance connection terminal for electric current adjustment of PDO output.
6	VVDD	-	Built-in VCO power supply terminal.
7	FR	I	VCO frequency range adjustment.
8	VSS	-	Ground for Digital
9	EFMO	O	EFM signal output terminal for slice level control.
10	EFMIN	I	EFM signal input terminal for slice level control.
11	TEST2	I	TEST pin. Normal time is non connection.
12	CLV+	O	Output terminal for Disc motor control.
13	CLV-	O	Output terminal for Disc motor control.
14	V/P	O	Change of rough servo / phase control Rough servo : "H", Phase control : "L"
15	HFL	I	Input terminal of track search signal.
16	TES	I	Input terminal of tracking error signal.
17	TOFF	O	Output terminal of tracking off.
18	TGL	O	Output terminal for change of tracking gain.
19	JP+	O	Output terminal for tracking jump control.
20	JP-	O	Output terminal for tracking jump control.
21	PCK	O	Clock monitor output terminal for EFM data playback. (4.3218 MHz)
22	FSEQ	O	Output terminal for detect of SYNC signal.
23	DVDD	-	+5V
24	CONT1	I/O	This output can control at serial control from micro processor.
25	CONT2	I/O	
26	CONT3	I/O	
27	CONT4	I/O	
28	CONT5	I/O	
29	EMPH	O	Output terminal of de-emphasis monitor . "H" : de-emphasis
30	C2F	O	Output terminal of C2 flag
31	DOUT	O	Output terminal of digital out

No.	Pin Name	I/O	Function
32	TEST3	I	Test pin.
33	TEST4	I	Test pin.
34	NC	-	Non connection.
35	MUTEL	O	Mute output terminal for L-ch
36	LVDD	-	Power supply for L-ch
37	LCHO	O	Output terminal for L-ch
38	LVSS	-	GND for L-ch
39	RVSS	-	GND for R-ch
40	RCHO	O	Output terminal for R-ch
41	RVDD	-	Power supply for R-ch
42	MUTER	O	Mute output terminal for R-ch
43	XVDD	-	Power supply of crystal oscillation
44	XOUT	O	Connection terminal of crystal oscillation (16.9344MHz)
45	XIN	I	Connection terminal of crystal oscillation (16.9344MHz)
46	XVSS	-	GND of crystal oscillation
47	SBSY	O	Output terminal for synchronizing signal of sub-cord block
48	EFLG	O	Output terminal for correction monitor of C1, C2, Single and Double
49	PW	O	Output terminal for sub-cord of P, Q, R, S, T, U and W
50	SFSY	O	Output terminal for synchronizing signal of sub-cord frame
51	SBCK	I	Input terminal for readout clock of sub-cord
52	FSX	O	Output terminal of Synchronizing signal (7.35kHz)
53	WRQ	O	Output terminal for standby of sub-cord Q output
54	RWC	I	Input terminal of read / write control
55	SQOUT	O	Output terminal of sub-cord Q
56	COIN	I	Input terminal of command from micro processor
57	CQCK	I	Clock input for reading sub-cord from SQOUT
58	RES	I	Reset (turn on : L)
59	TST11	O	Test pin
60	16M	O	16.9344MHz
61	4.2M	O	4.2336MHz
62	TEST5	I	Test pin
63	CS	I	Chip select terminal
64	TEST1	I	Test pin

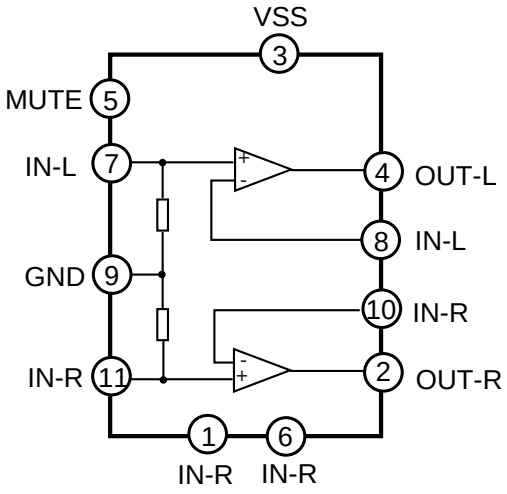


IC BLOCK DIAGRAM & DESCRIPTION

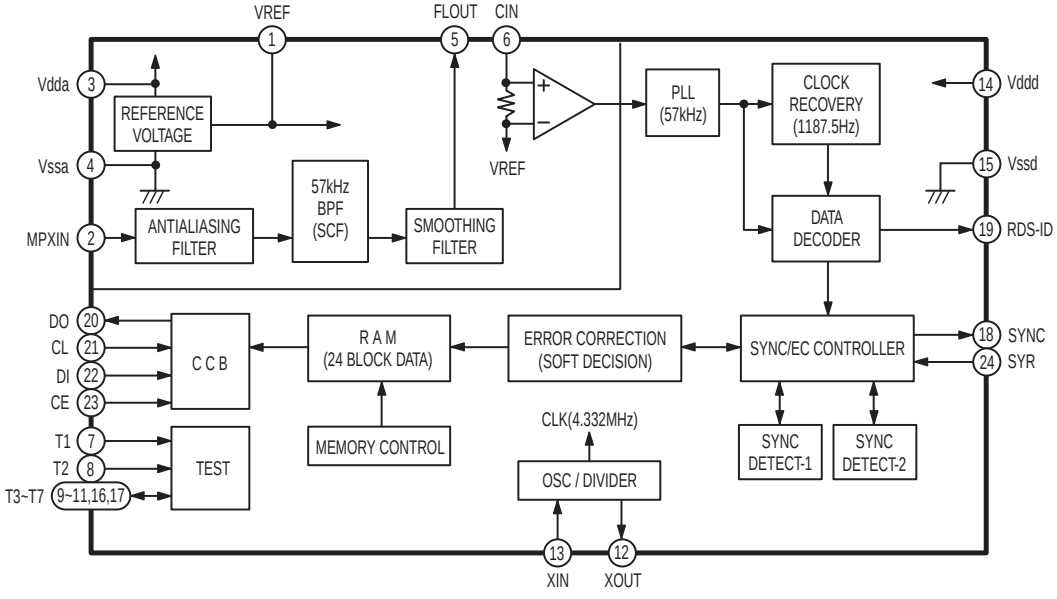
IC231 LA1844ML (Tuner System)



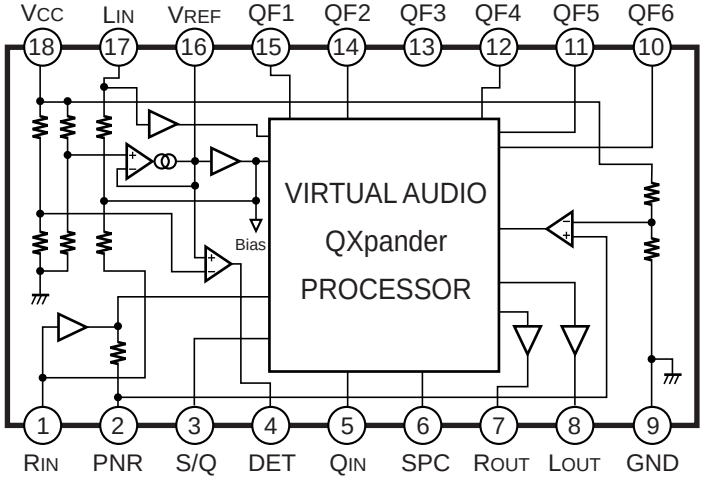
IC442 TDA7269 (Stereo Amplifier)



IC251 LC72722 (RDS Signal Processor)



IC445 MM1453XF (Q Xpander with Spread Control)



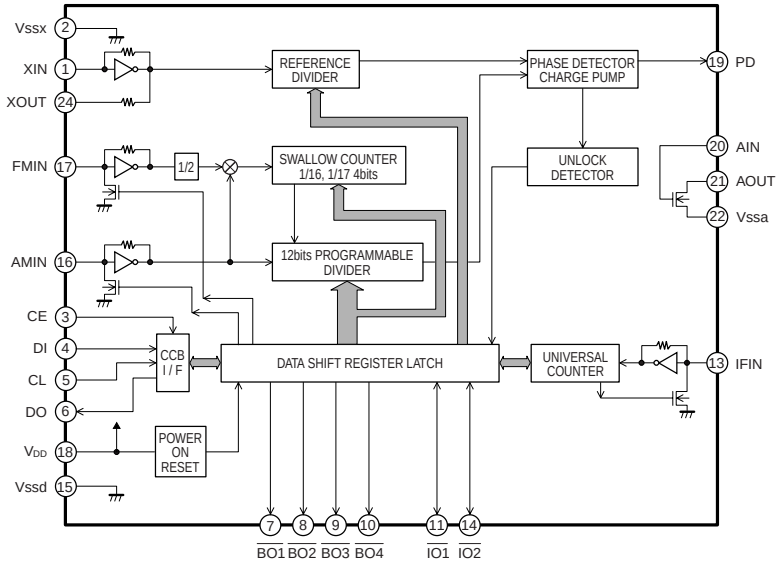
IC BLOCK DIAGRAM & DESCRIPTION

IC601 LC867240A-5V46 (Micro Processor)

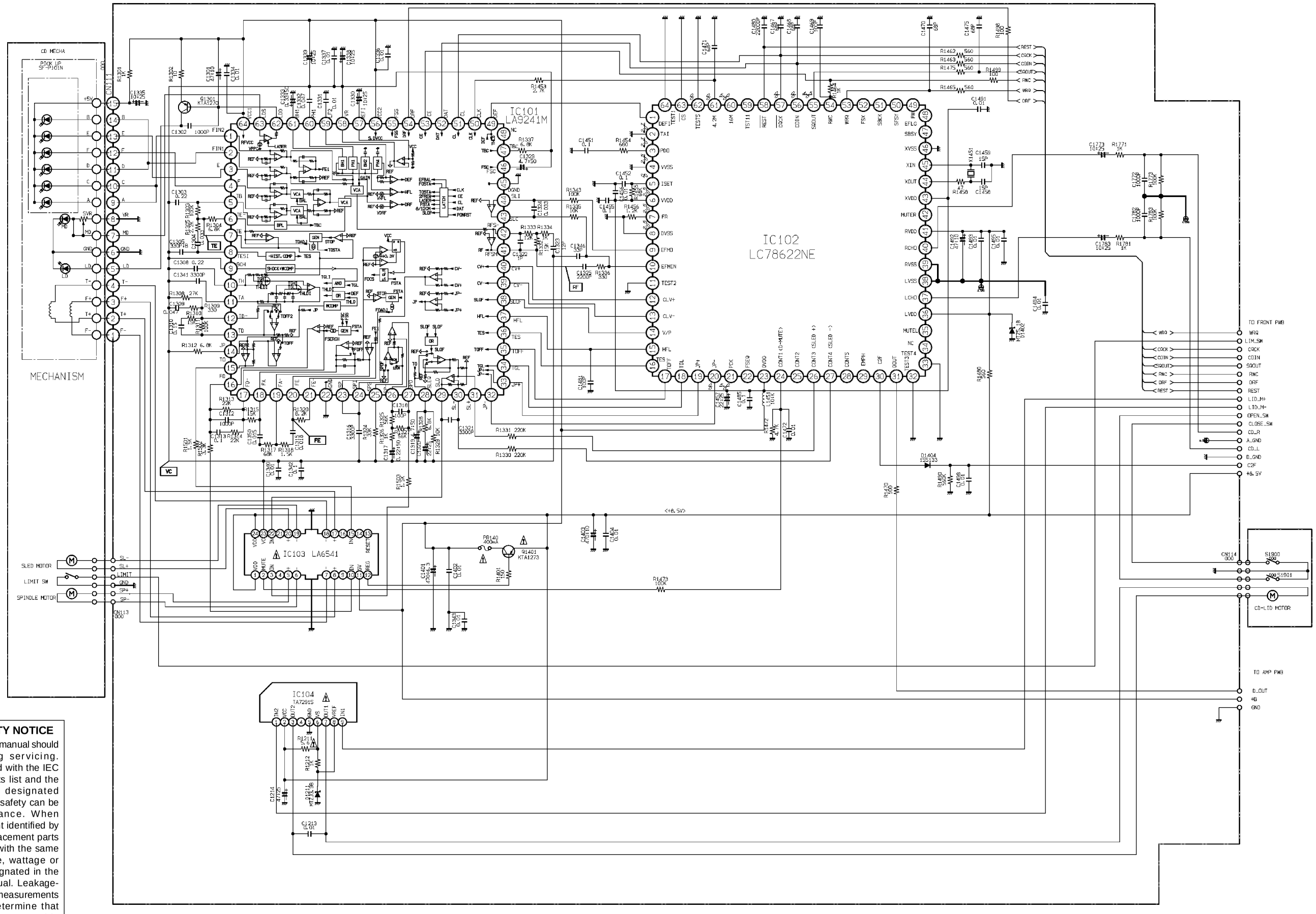
Pin No	Pin Name	Symbol	I/O	Function
1	P06	AMBER_LED	O	AMBER_LED Output
2	P07	DSP_RESET	O	DSP Reset Signal
3	P10/S00	COIN	O	CD_DSPInterface(command+data Output)
4	P11/SIO/SB0	SQOUT	I	CD_DSPInterface(SubQ dataInput)
5	P12/SCK0	CQCK	O	CD_DSPInterface(Clock)
6	P13/S01	VD_GND	O	Processor Power Check (GND) Control Output
7	P14/SII/SB1	Sift	O	Shift Control for Micon Oscillatrion Frequency
8	P15/SCK1	RWC	O	CD_DSP Interface(Command·latch Output)
9	P16/BUZ	JOG+	I	Jog Dial +
10	P17/PWM0	JOG-	I	Jog Dial -
11	P70/INT0	DRF	I	DRF Signal Input
12	RES/	Reset		Reset Switch
13	XT1/P74			Sub Clock OSC
14	XT2/P75			Sub Clock OSC
15	VSS1	Vss		Gnd
16	CF1			Main Clock OSC
17	CF2			Main Clock OSC
18	VDD1	Vdd		Power Supply Terminal
19	P80/AN0			
20	P81/AN1	Key1	A/D	Key In
21	P82/AN2	Key2	A/D	Key In
22	P83/AN3	Open SW	I	Top Lid Open Sens. Switch
23	P84/AN4	Close SW	I	Top Lid Close Sens. Switch
24	P85/AN5	LIMIT_SW	I	Limit Switch
25	P86/AN6	C2F	I	DSP C2F Input
26	P87/AN7	M-Media	I	Multi Media Input
27	P71/INT1	WRQ	I	CD DSP Interface (SubQ Request)
28	P72/INT2/TOIN	RDS_IN	I	Serial Data for RDS IC Input
29	P73/INT2/TOIN	IR	I	Remotecontrol Input
30	S0/PA0	V CHK	I	Power failure Detect/Processor Power Check Input
31	S1/PA1	G_REVS	I	Miss Recording SW(tapeAB side)Input
32	S2/PA2	G_FWD	I	Miss Recording SW(tapeB side)Input
33	S3/PA3	PACK	I	Tape Park Check Input
34	S4/PA4	TAPE_INI	I	Tape Deck Initialize
35	S5/PA5	REEL	I	Real Rotating signal Input
36	S6/PA6	Tape Play PL	O	Tape Play Plunger Output
37	S7/PA7	Motor	O	Tape Motor Output
38	S8/PA8	**B E A T**	O	Beat Cancel Control
39	S9/PB1	R Mute	O	Tape Recording Mute
40	S10/PB2	OSC	O	Tape Oscillation ON/OFF Control
41	S11/PB3	SURROUND	O	Surround Output
42	S12/PB4		O	LCD Pin No5
43	S13/PB5		O	LCD Pin No6
44	S14/PB6		O	LCD Pin No7
45	S15/PB7		O	LCD Pin No8
46	S16/PC0		O	LCD Pin No9
47	S17/PC1		O	LCD Pin No10
48	S18/PC2		O	LCD Pin No11
49	S19/PC3		O	LCD Pin No12
50	S19/PC4		O	LCD Pin No13

Pin No	Pin Name	Symbol	I/O	Function
51	S21/PC5		O	LCD Pin No14
52	S22/PC6		O	LCD Pin No15
53	S23/PC7		O	LCD Pin No16
54	S24/PD0		O	LCD Pin No17
55	S25/PD1		O	LCD Pin No18
56	VDD2	Vdd	O	Vdd
57	VSS2	Vss	O	Gnd
58	S26/PD2		O	LCD Pin No19
59	S27/PD3		O	LCD Pin No20
60	S28/PD4		O	LCD Pin No21
61	S29/PD5		O	LCD Pin No22
62	S30/PD6		O	LCD Pin No23
63	S31/PD7		O	LCD Pin No24
64	S32/PE0		O	LCD Pin No25
65	S33PE1		O	LCD Pin No26
66	S34/PE2		O	LCD Pin No27
67	S35/PE3		O	LCD Pin No28
68	S36/PE4		O	LCD Pin No29
69	S37/PE5		O	LCD Pin No30
70	S38/PE6		O	LCD Pin No31
71	S39/PE7		O	LCD Pin No32
72	S40/PF0		O	LCD Pin No33
73	S41/PF1		O	LCD Pin No34
74	S42/PF2		O	LCD Pin No35
75	S43/PF3		O	LCD Pin No36
76	S44/PF4		O	LCD Pin No37
77	S45/PF5		O	LCD Pin No38
78	S46/PF6		O	LCD Pin No39
79	S47/PF7		O	LCD Pin No40
80	V3/PL6			
81	V2/PL5			
82	V1/PL4			
83	COM0/PL0	LCD COM1	O	LCD COM 1 (LCD Panel Pin1)
84	COM1/PL1	LCD COM2	O	LCD COM 2 (LCD Panel Pin2)
85	COM2/PL2	LCD COM3	O	LCD COM 3 (LCD Panel Pin3)
86	COM4/PL3	LCD COM4	O	LCD COM 4 (LCD Panel Pin4)
87	P30	D CHK	O	Serial Clock Output for Tuner/Volume FUNC IC
88	P31	TU_DUT	O	Serial Data Output for Tuner IC
89	VSS3	Vss		Gnd
90	VDD3	Vdd		Power Supply Terminal
91	P32	VF_DO	O	Serial Data Output for VOL_FUNC IC
92	P33	VF_CE	O	Serial Data Output for VOL_FUNC IC
93	P34	TU_CE	O	Serial Latch Output for TU IC
94	P35	TU_DI	I	Serial Data Input for TU IC
95	P00	LID_M+	O	Top Lid Motor Control Output +
96	P01	LID_M-	O	Top Lid Motor Control Output -
97	P02	P_CON	O	Power Control
98	P03	PRE_MUTE	O	Pre Amp Mute Output
99	P04	MAIN_MUTE	O	Power Amp Mute
100	P05	BLUE_LED	O	Blue LED Output

IC241 LC72121M-D (Pll Synthesizer)



SCHEMATIC DIAGRAM (CD)

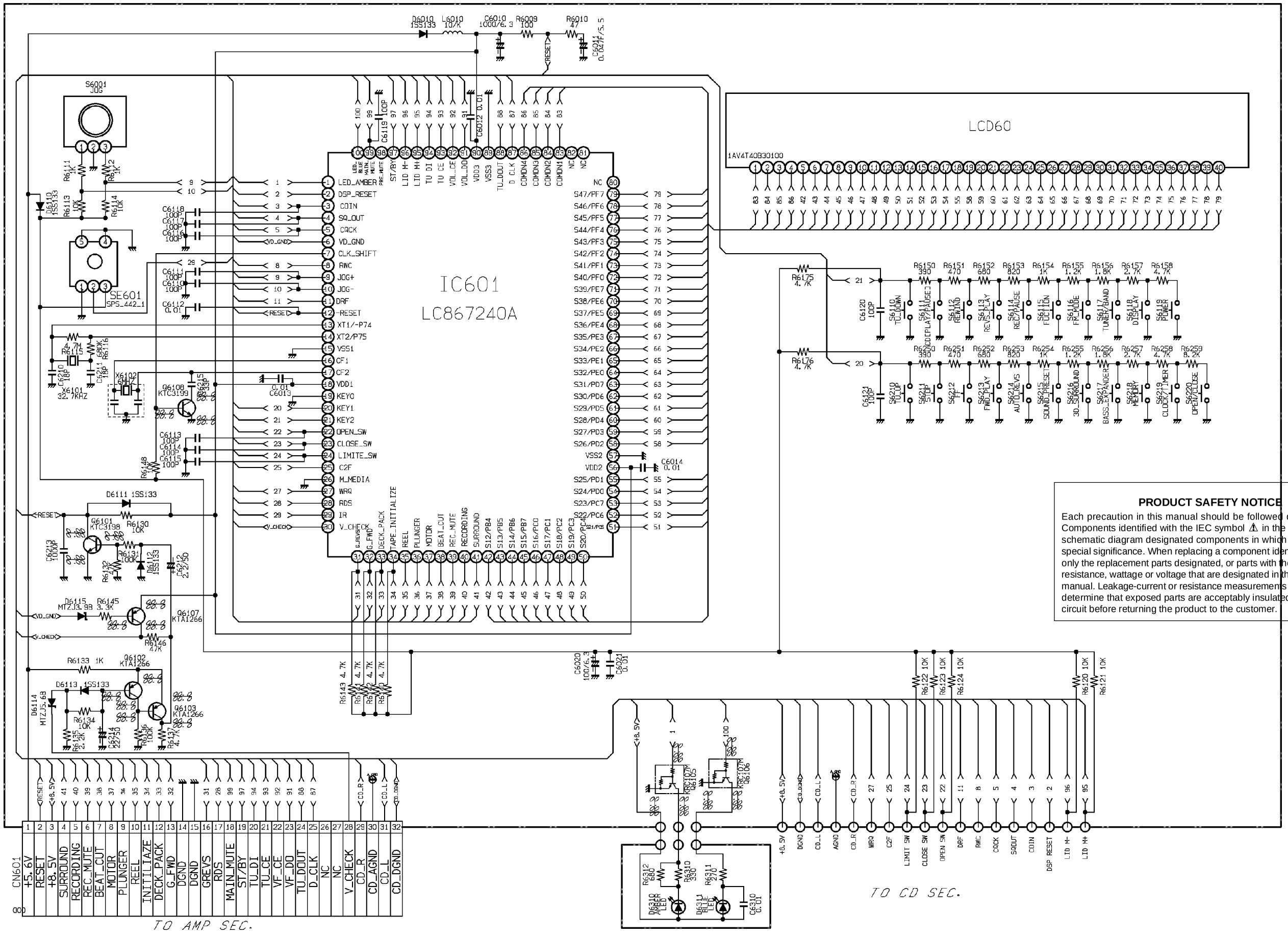


PRODUCT SAFETY NOTICE

Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol ⚠ in the parts list and the schematic diagram designated components in which safety can be of special significance. When replacing a component identified by ⚠ , use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual. Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

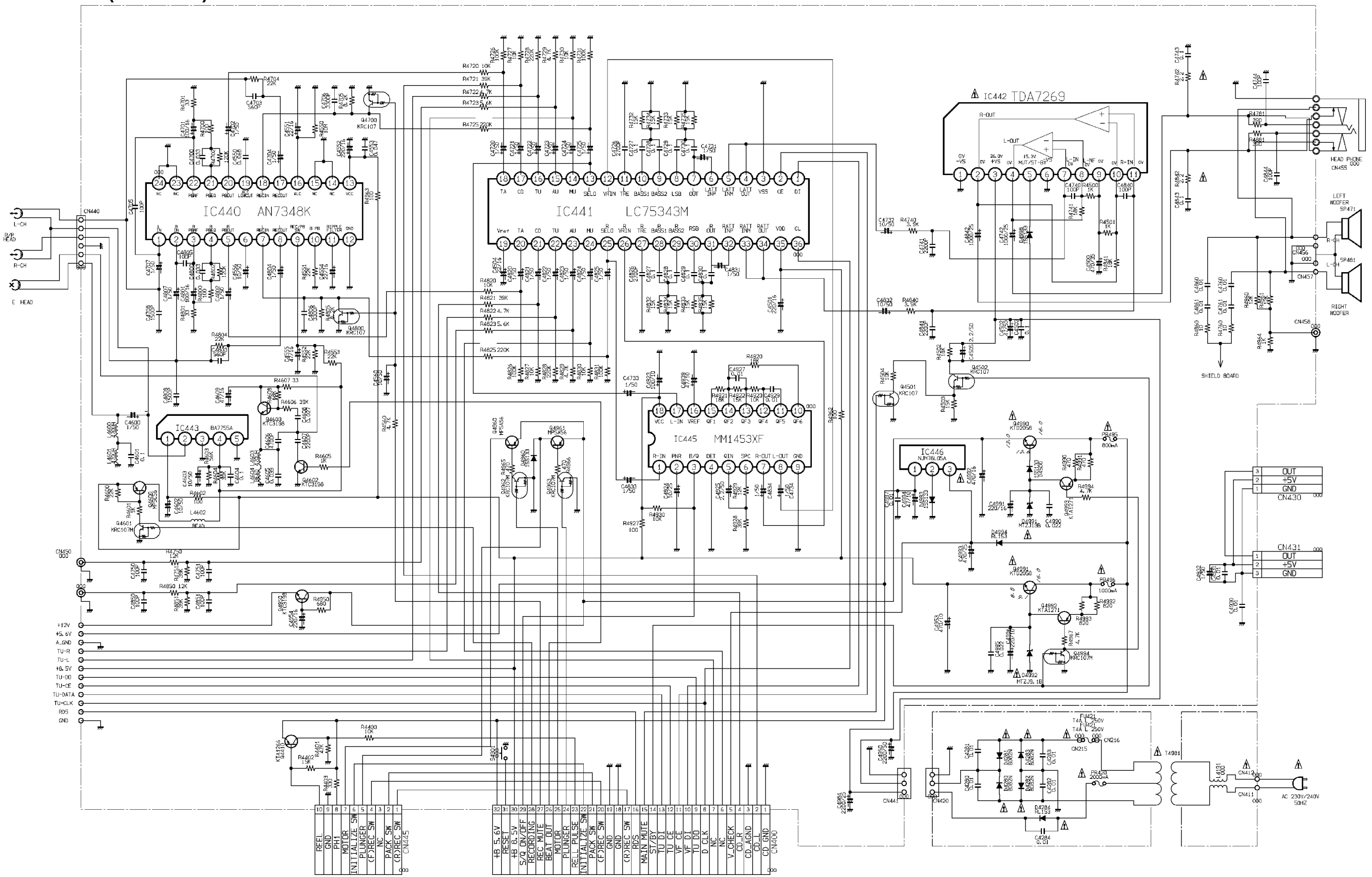
This is a basic schematic diagram.

SCHEMATIC DIAGRAM (FRONT)



This is a basic schematic diagram.

SCHEMATIC DIAGRAM (AMPLIFIER)

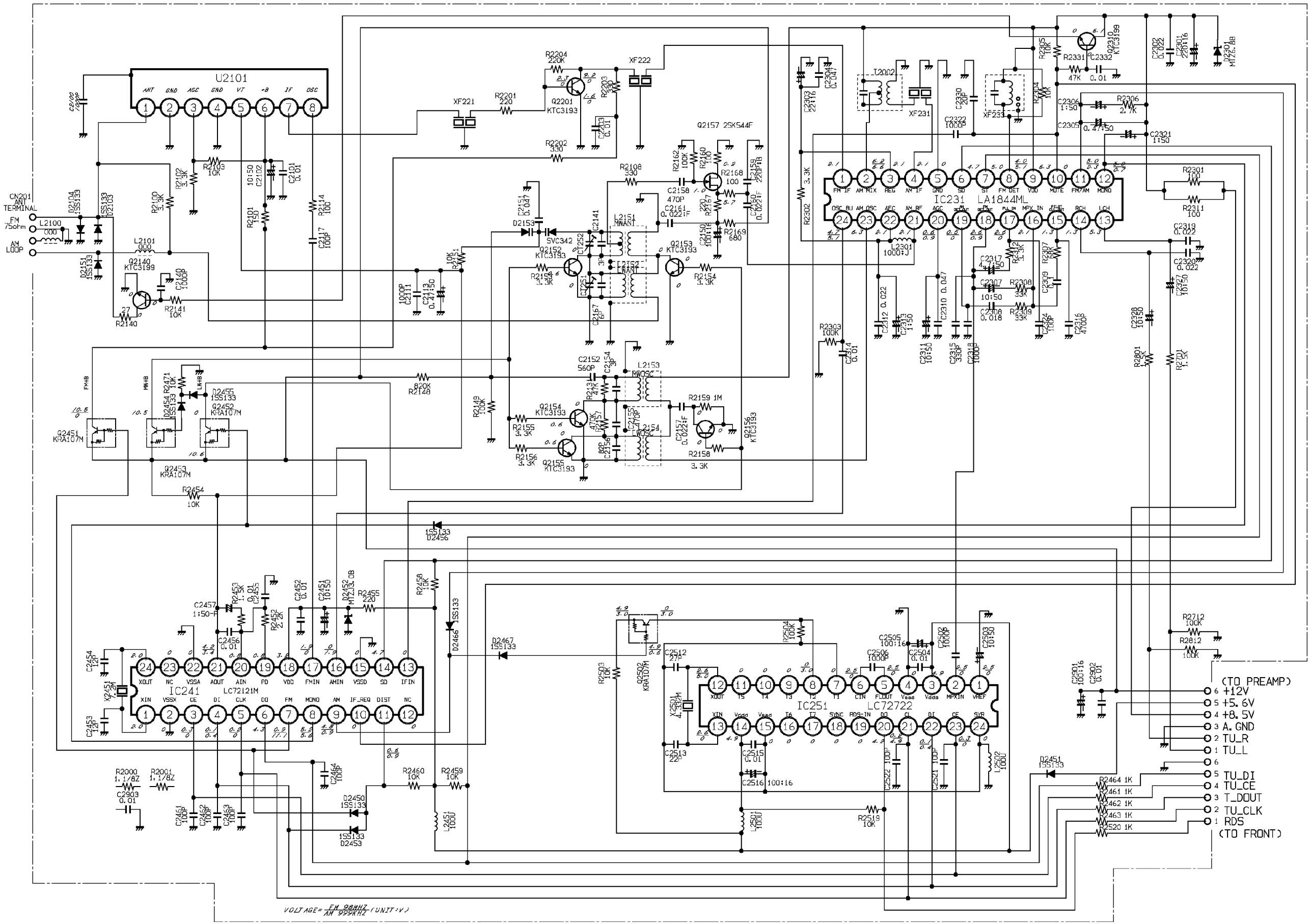


PRODUCT SAFETY NOTICE

Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol ⚠ in the parts list and the schematic diagram designated components in which safety can be of special significance. When replacing a component identified by ⚠ , use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual. Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

This is a basic schematic diagram.

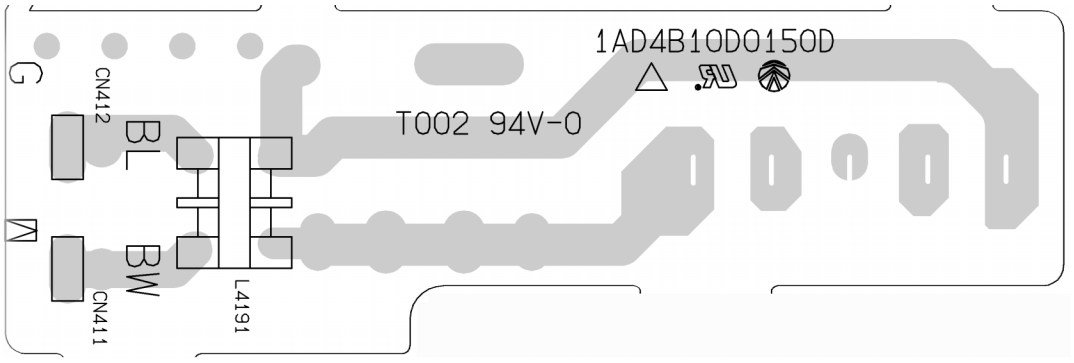
SCHEMATIC DIAGRAM (TUNER)


U2101
ANT GND AGC GND VT +B IF OSC
IC241 LC72121M
XIN VSSX CE DI CLK DO FM MONO AM IF_REQ DIST NC
XOUT NC VSSA AOUT AIN FD VDD FMIN AMIN VSSD SD IFIN
IC231 LA1844ML
FM IF AM MIX REG AM IF GND SD ST FM DET VDD MUTE FM/AM MONO
OSC_BU AM_OSC AFC AM_RF AGC AM_IF FM_IF MPX_IN FM_RF FM_IF RCH LCH
IC251 LC72722
XOUT TS T4 T3 T2 T1 CIN FLOUT Vaaa Vdda MPXIN VREF
XIN Vdda Vssd T6 T7 SYNC RDS-IN DO CL DI CE SVR
CN201 ANT TERMINAL
FM 75ohm
AM LOOP
Q2157 2SK544F
SVC342
(TO PREAMP)
6 +12V
5 +5.6V
4 +8.5V
3 A.GND
2 TU_R
1 TU_L
6
5 TU_DI
4 TU_CE
3 T_DOUT
2 TU_CLK
1 RDS
(TO FRONT)
VOLTAGE= FM 98MHZ / AM 999KHZ (UNIT:V)

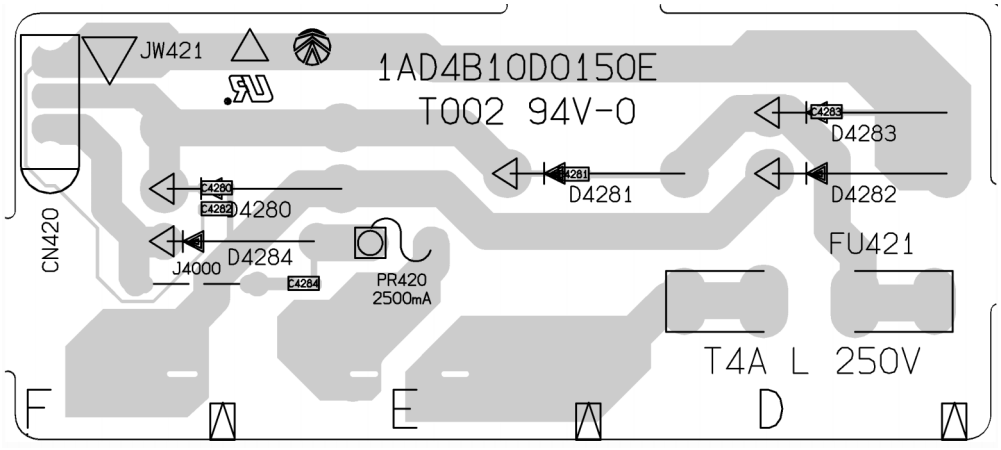
This is a basic schematic diagram.

WIRING DIAGRAM(PRIMARY+ SECONDARY POWER TRANSFORMER AND CD LID SWITCH)

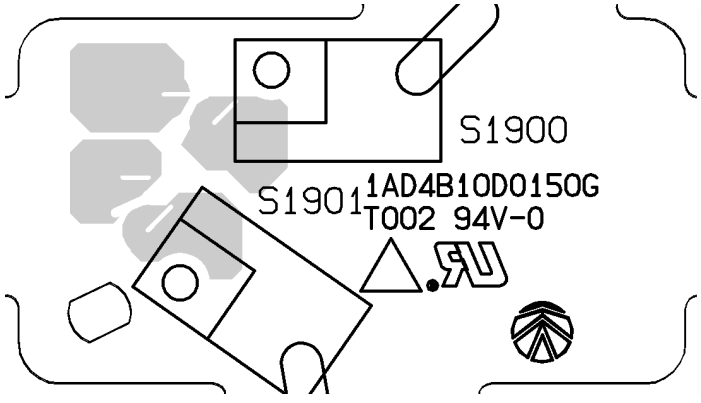
POWER TRANSFORMER, PRIMARY P.W.BOARD



POWER TRANSFORMER, SECONDARY P.W.BOARD



CD LID SWTICH P.W.BOARD



VOLTAGE TABLE

IC101 LA9241M UNIT:V

PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
VOL(V)	2.51	2.51	2.54	2.54	2.52	2.52	2.52	2.52	2.52	2.52	2.52	2.52	2.52	2.52	2.52	2.52	2.52	2.52
PIN	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
VOL(V)	2.52	2.52	2.52	0	2.52	2.52	2.52	2.52	2.52	2.52	2.02	2.28	2.28	0	0	4.98	4.98	0
PIN	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54
VOL(V)	0	4.98	0	0	1.62	2.44	2.46	2.55	0	2.54	2.52	0	0	2.32	4.71	4.71	0	0
PIN	55	56	57	58	59	60	61	62	63	64								
VOL(V)	0	4.99	2.53	2.53	0.97	0.98	2.23	4.35	0	5.01								

IC102 LC78622NE UNIT:V

PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
VOL(V)	0	0	0	0	1.53	4.97	0.1	0	2.54	2.44	0	0	0	4.95	0	0.06	4.96	4.96
PIN	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
VOL(V)	0	0	2.46	0	4.97	4.86	0	0	0	0	0	4.89	2.49	0	0	0	4.96	4.98
PIN	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54
VOL(V)	2.03	0	0	2.04	4.98	4.94	4.96	2.15	2.11	0	0.12	2.27	0	2.48	0.1	2.48	0	0
PIN	55	56	57	58	59	60	61	62	63	64								
VOL(V)	0	4.71	4.63	4.75	0	2.01	2.22	0	0	0								

IC103 LA6541 UNIT:V

PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
VOL(V)	8.63	4.81	2.51	2.52	3.88	3.9	3.91	3.91	2.53	2.53	5.02	8.02	4.99	4.83	2.52	2.53	3.89	3.93
PIN	19	20	21	22	23	24												
VOL(V)	3.93	3.93	2.53	2.53	2.53	8.63												

IC104 TA7291 UNIT:V

PIN	1	2	3	4	5	6	7	8	9									
VOL(V)	4.76	8.64	0.56	0	0	8.61	0.56	4.03	4.76									

IC231 LA1844ML UNIT:V

PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
VOL(V)	2.31	6.7	2.31	2.31	0	4.65	4.65	6.7	6.7	0	5.61	5.69	3.21	3.21	2.25	2.31	2.05	2.53
PIN	19	20	21	22	23	24												
VOL(V)	0	0.27	2.58	2.58	6.69	6.69												

IC241 LC72121M UNIT:V

PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
VOL(V)	1.52	0	0.22	0.14	0.17	4.65	0	11.6	5.38	0	0.61	0	0	4.65	0	0.07	1.49	3.1
PIN	19	20	21	22	23	24												
VOL(V)	0.9	0.9	1.43	0	0	1.52												

IC251 LC72722 UNIT:V

PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
VOL(V)	2.36	2.36	4.72	0	2.36	2.36	0	0	0	0	0	2.39	2.23	4.72	0	0	0	0
PIN	19	20	21	22	23	24												
VOL(V)	0	4.5	0.16	0.14	0.22	0												

IC440 AN7348K UNIT:V

PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
VOL(V)	0	0	0.66	3.23	3.23	0.07	0	0	0	0	4.99	0	6.99	0	0	0	0	0
PIN	19	20	21	22	23	24												
VOL(V)	0.16	3.2	3.91	0.67	0	0												

IC441 LC75343M UNIT:V

PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
VOL(V)	0	0	0	3.41	3.41	3.41	3.41	3.41	3.41	3.41	3.41	3.41	3.41	3.41	3.41	3.41	3.41	3.41
PIN	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
VOL(V)	3.41	3.41	3.41	3.41	3.41	3.41	3.41	3.41	3.41	3.41	3.41	3.41	3.41	3.41	3.41	3.41	6.83	0

IC442 TDA7269 UNIT:V

PIN	1	2	3	4	5	6	7	8	9	10	11							
VOL(V)	0	17.3	35.1	17.3	30.7	0	17.3	17.3	17.3	17.3	17.3							

VOLTAGE TABLE

IC443 BA7755A UNIT:V

PIN	1	2	3	4	5
VOL(V)	8.22	0	0	0	0

IC445 MM1453XF UNIT:V

PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
VOL(V)	3.42	3.42	0	0	3.42	3.42	3.42	3.42	0	3.42	3.42		3.42	3.42	3.42	4.09	3.42	7.38

IC446 NJM78L05 UNIT:V

PIN	1	2	3
VOL(V)	17.3	0.58	5.48

IC601 LC867240A UNIT:V

PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
VOL(V)	0	4.75	4.75	0	4.75	4.75	0	0	4.83	4.83	0	4.75	2.55	2.66	0	2.1	2.4	0
PIN	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
VOL(V)	0	4.85	4.85	0	0	4.75	0	0	0	4.66	4.83	4.6	4.83	4.83	4.83	4.83	2.01	0
PIN	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54
VOL(V)	0	0	4.67	0	0	2.41	2.41	2.39	2.38	2.39	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41
PIN	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72
VOL(V)	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41
PIN	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
VOL(V)	2.41	2.41	2.41	2.41	2.41	2.41	2.41	0	0	0.1	2.44	2.44	2.44	2.44	0	0	0	4.75
PIN	91	92	93	94	95	96	97	98	99	100								
VOL(V)	0	0	0	4.73	4.76	4.76	4.71	4.75	0	4.71								

TRANSOSTOR UNIT:V

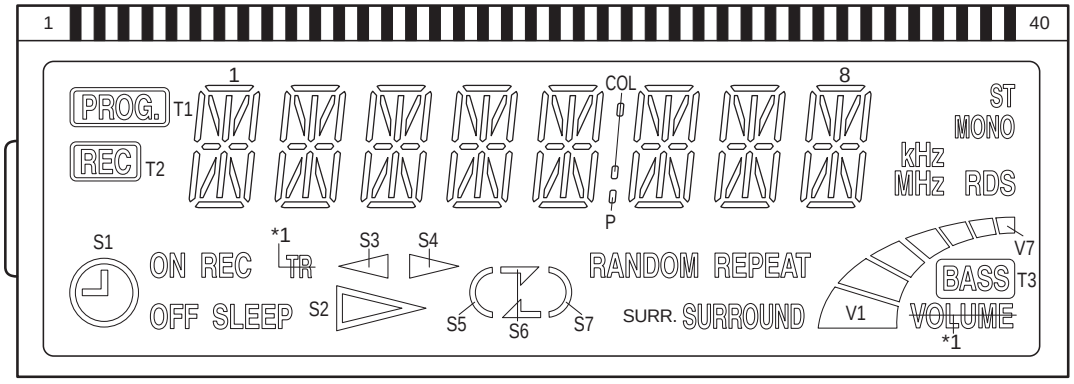
	Q4410	Q4501	Q4502	Q4600	Q4601	Q4602	Q4603	Q4700	Q4800	Q4950	Q4960	Q4961	Q4962	Q4963	Q4990	Q4991	Q4992	Q4993
E	5.46	0	4.02	8.7	0	0	0	0	0	11.9	12.6	12.6	0	0	12.5	8.69	9.35	13.6
C	5.45	0	3.08	0	0.68	0	0	0	0	11.3	0	0	12.3	12.1	17.6	17.6	9.33	13.6
B	4.81	4.67	4.68	8.67	0	0	0	2.23	4.73	11.6	12	12.1	0	0	13.1	9.33	8.67	12.9

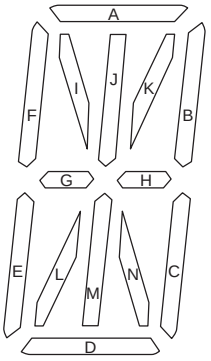
	Q4994	Q1301	Q1401	Q6101	Q6102	Q6103	Q6105	Q6106	Q6107	Q6108	Q2140	Q2152	Q2153	Q2154	Q2155	Q2156	Q2158	Q2201
E	0	4.97	8.64	0	4.52	4.52	0	0	4.76	0	0	0	0	0	0	0	10.3	0
C	0	1.53	5.04	4.76	3.88	4.46	7.18	0.12	4.6	0.66	0	0	0	0	0	0	0.16	8.44
B	4.67	4.33	8.04	0	11.8	3.88	0	4.71	4.74	0	0	0.79	0	0.78	0.78	0	0	0.67

	Q2310	Q2451	Q2452	Q2453	Q2502													
E	0	10.7	10.7	10.7	4.73													
C	6.69	10.6	0	11.6	0													
B	0	0	10.6	5.96	4.7													

LCD DISPLAY DESCRIPTION

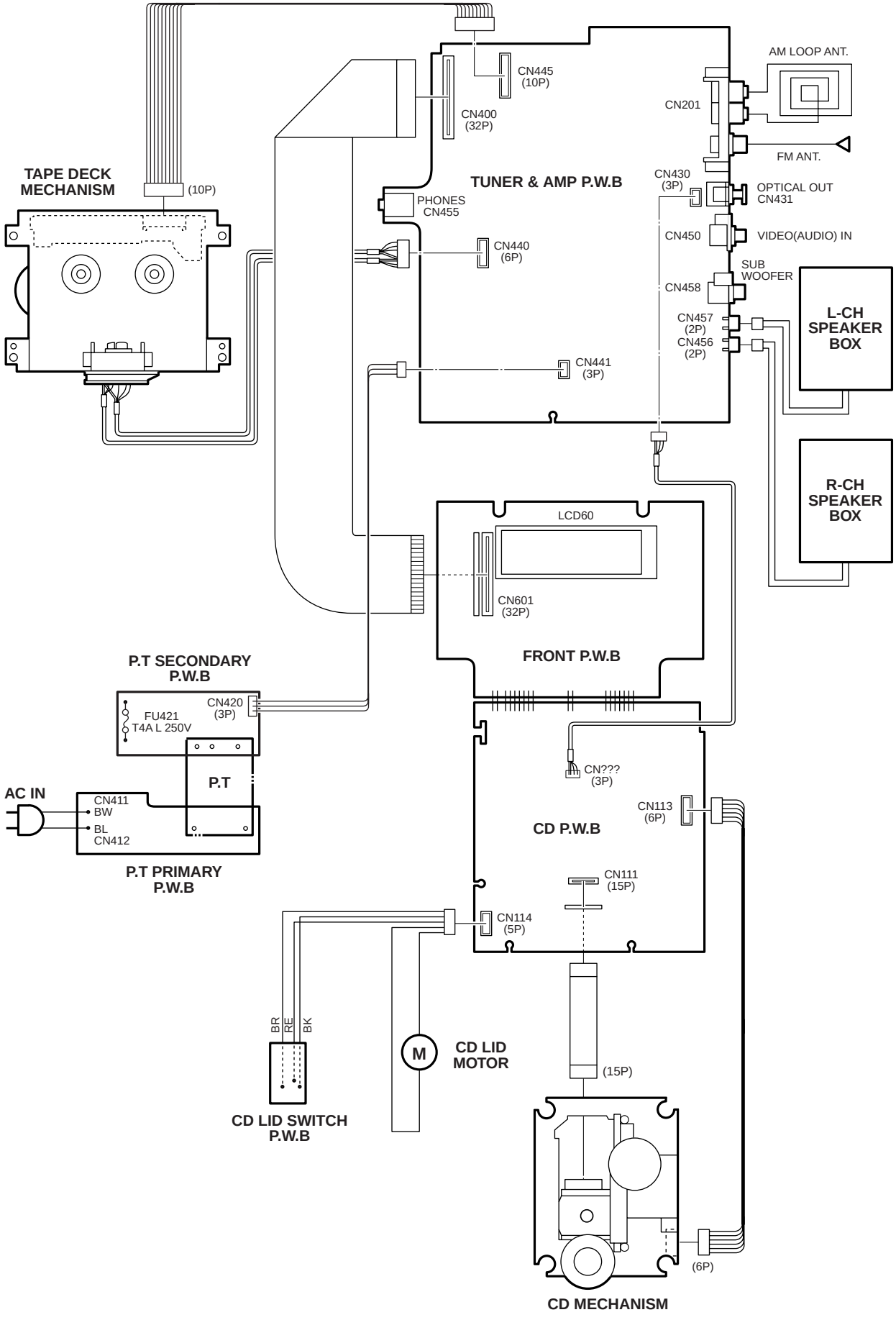
LCD60





PAD NO.	COM1	COM2	COM3	COM4	PAD NO.	COM1	COM2	COM3	COM4
1	COM1	--	--	--	21	5F	5G	5E	S7
2	--	COM2	--	--	22	5A	5I	5M	5L
3	--	--	COM3	--	23	5K	5J	5N	5D
4	--	--	--	COM4	24	5B	5H	5C	COL
5	1F	1G	1E	OFF	25	6F	6G	6E	P
6	1A	1I	1M	1L	26	6A	6I	6M	6L
7	1K	1J	1N	1D	27	6K	6J	6N	6D
8	1B	1H	1C	REC	28	6B	6H	6C	RANDOM
9	2F	2G	2E	SLEEP	29	7F	7G	7E	SURR.
10	2A	2I	2M	2L	30	7A	7I	7M	7L
11	2K	2J	2N	2D	31	7K	7J	7N	7D
12	2B	2H	2C	S2	32	7B	7H	7C	REPEAT
13	3F	3G	3E	S3	33	8F	8G	8E	MHz
14	3A	3I	3M	3L	34	8A	8I	8M	8L
15	3K	3J	3N	3D	35	8K	8J	8N	8D
16	3B	3H	3C	S4	36	8B	8H	8C	KHz
17	4F	4G	4E	S5	37	T1	T2	ON	S1
18	4A	4I	4M	4L	38	ST	MONO	RDS	T3
19	4K	4J	4N	4D	39	*1	V1	V2	V3
20	4B	4H	4C	S6	40	V4	V5	V6	V7

WIRING CONNECTION



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Osaka, Japan

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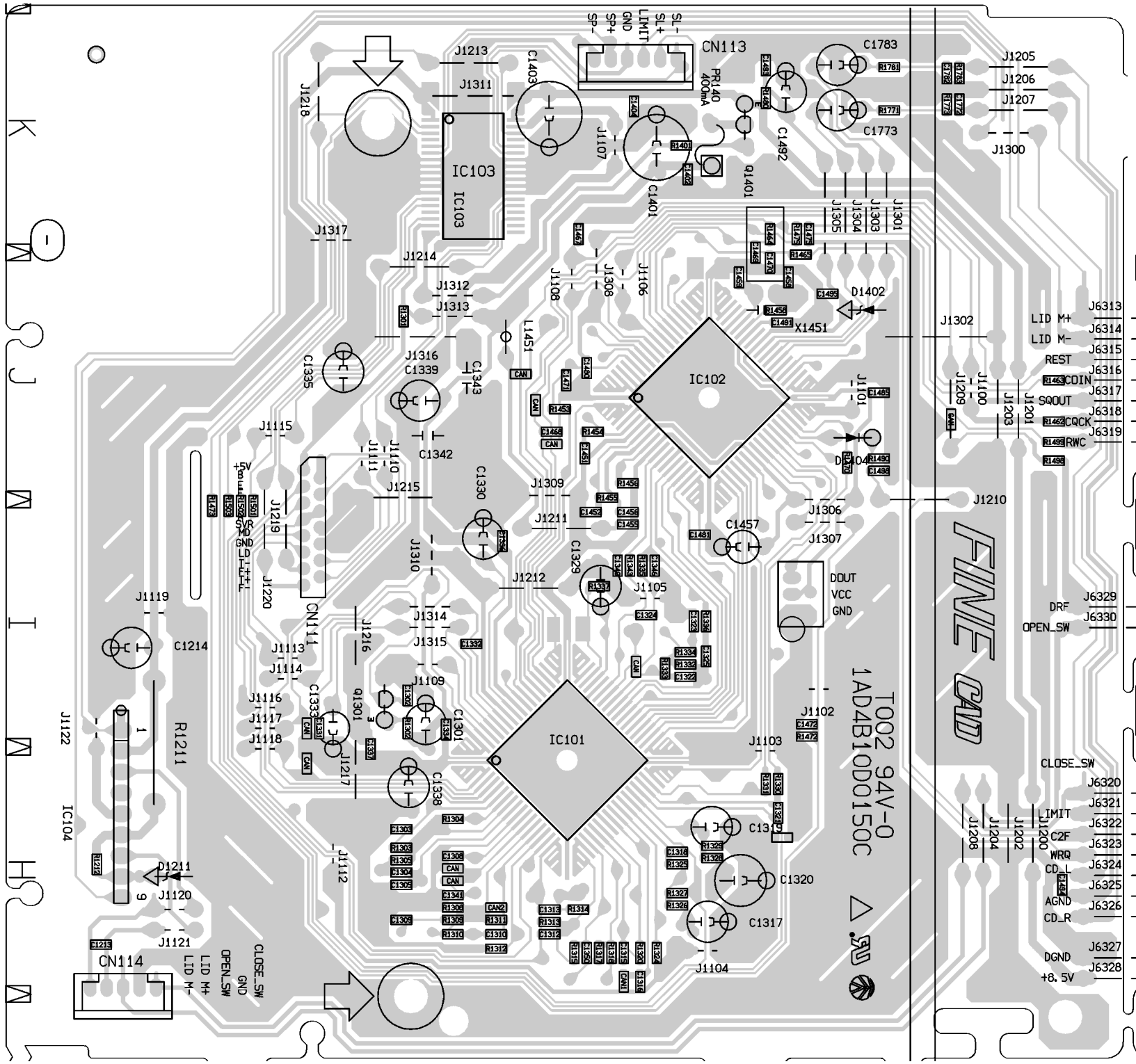
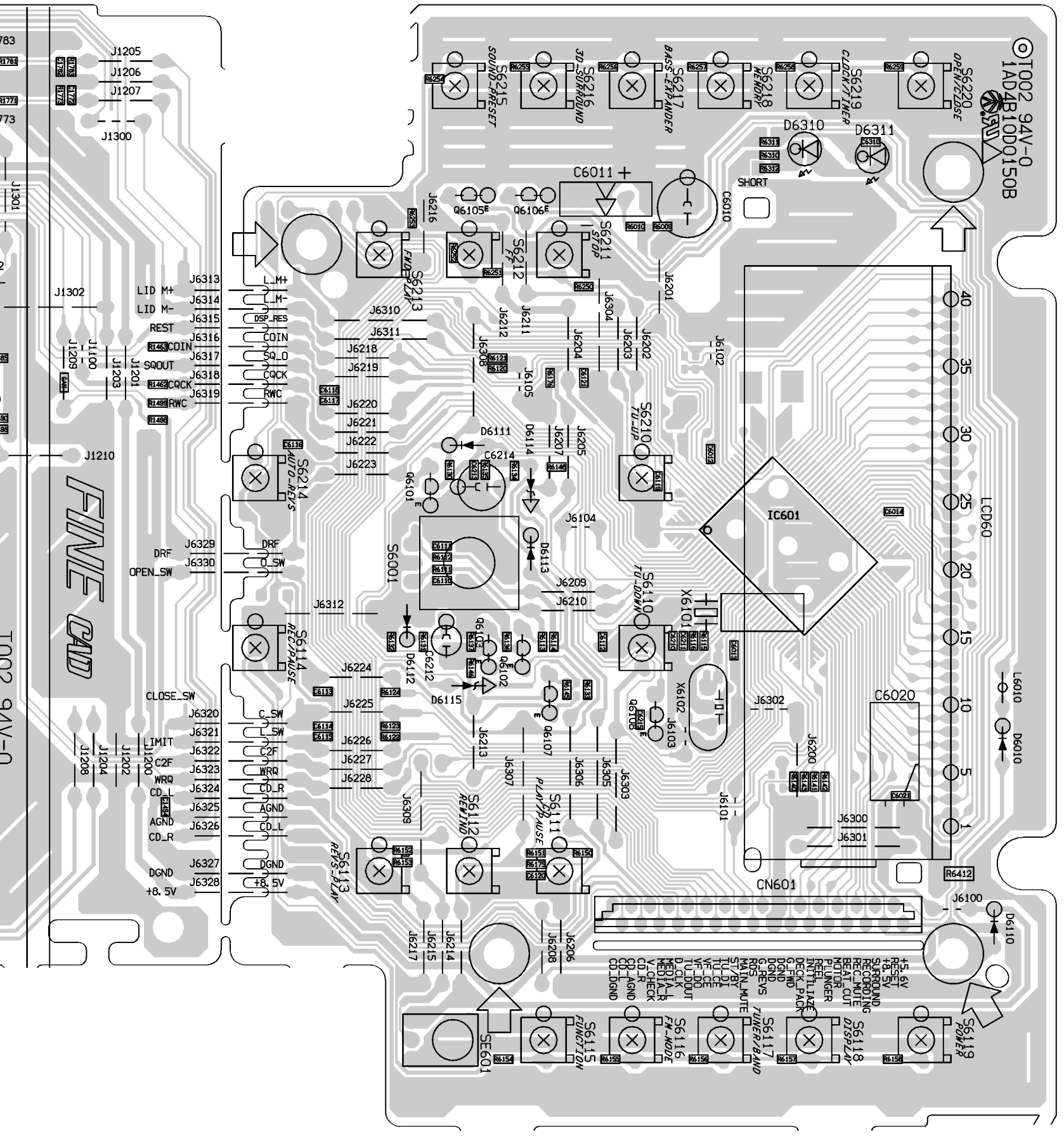
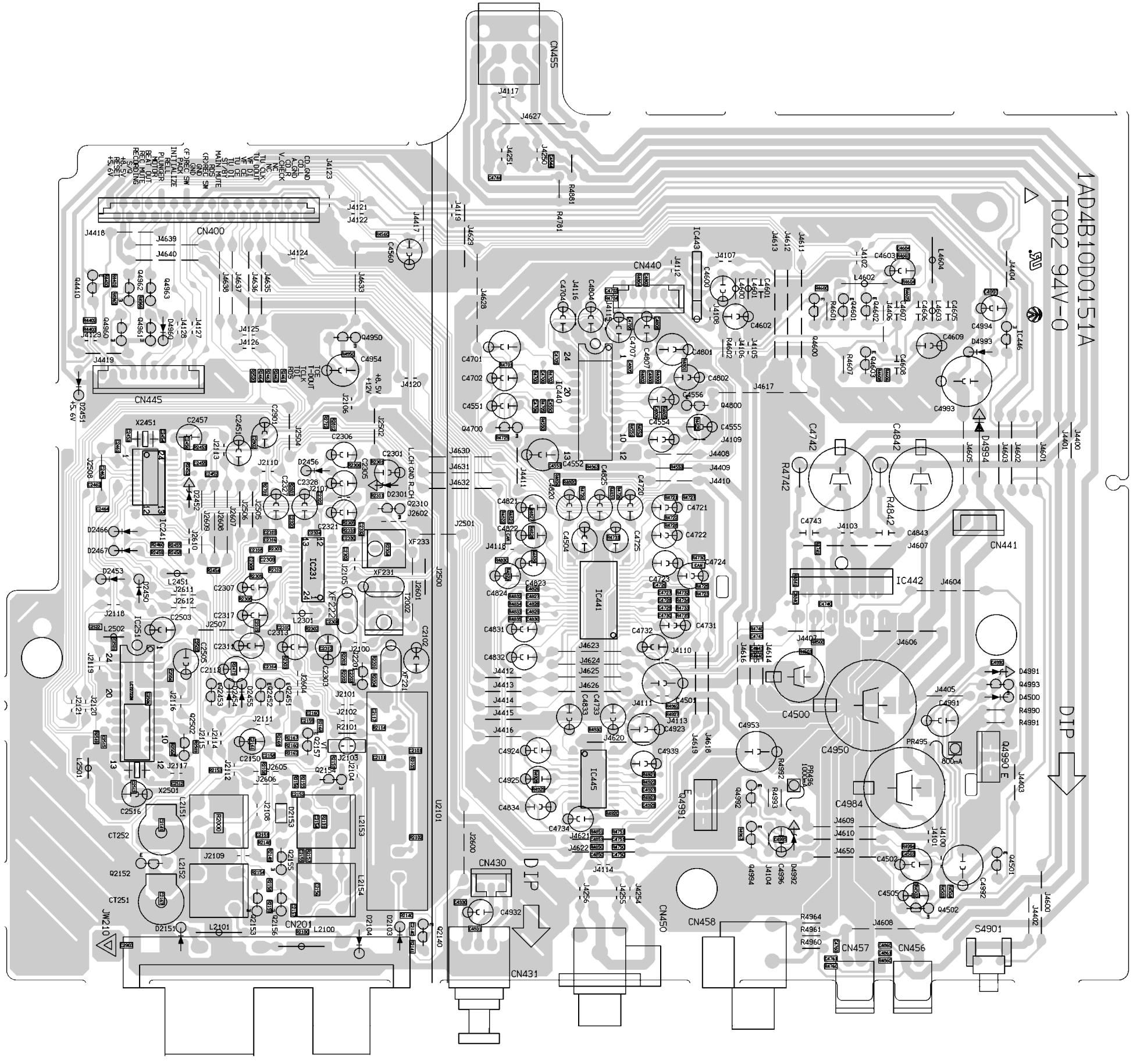
WIRING DIAGRAM (CD & FRONT)

CD P.W.BOARD



FRONT P.W.BOARD

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